SAMSUNG

# SMART TV E-Manual

# Contents

## Quick Guides


### Using Smart Hub

1 Connecting to the Internet

1 Setting up Smart Hub

1 Using Smart Hub

### Controlling the TV with Your Voice

2 Setting up Voice Recognition

2 Controlling the TV with your voice

### Controlling the TV with Your Motion

3 Setting up Motion Control

3 Controlling the TV using motions

### Using the Samsung Smart Control

4 Operating the TV with the POINTER button

5 Setting up the Samsung Smart Control

5 Pairing the TV to the Samsung Smart Control

### Improving the Viewing Experience of Sports Events

6 Activating sports mode

### Displaying Multiple Screens


## Connections


### Connecting an Antenna

### Connecting to the Internet

9 Establishing a wired Internet connection

11 Establishing a wireless Internet connection

12 Checking the internet connection status

12 Changing the name of the TV on a network

### Troubleshooting Internet Connectivity Issues

13 Troubleshooting wired Internet connectivity issues

14 Troubleshooting wireless Internet connectivity issues

### Connecting Video Devices

15 Connecting with an HDMI cable

16 Connecting with a component cable

17 Connecting with a composite (A/V) cable

### Audio Input and Output Connections

18 Connecting with an HDMI (ARC) cable

19 Connecting with a digital audio (optical) cable

19 Connecting with a stereo audio cable

### Connecting a Computer

20 Connecting with an HDMI cable

21 Connecting through the HDMI port

21 Connecting through your home network

### Connecting a Mobile Device

22 Connecting with an MHL-to-HDMI Cable

23 Using Screen Mirroring

24 Connecting mobile devices without a wireless router (Wi-Fi Direct)

24 Connecting via Samsung Smart View 2.0

### Changing the input signal with external devices

### Connection Notes

26 Connection notes for HDMI

27 Connection notes for audio devices

27 Connection notes for computers

27 Connection notes for mobile devices

# Remote Control and Peripherals


About the Samsung Smart Control

Using the Samsung Smart Control

30 Operating the TV with the POINTER button

30 Operating the TV with the directional buttons and the Enter button

31 Displaying and using the On-Screen Remote

32 Pairing the TV to the Samsung Smart Control

Controlling External Devices with the TV Remote - Using the Universal Remote

33 Setting up the universal remote control

Controlling the TV with a Keyboard

34 Connecting a keyboard

35 Using the keyboard

Controlling the TV with a Mouse

36 Connecting a mouse

36 Using a mouse

Connecting a Bluetooth Gamepad

Entering Text using the On-Screen QWERTY Keypad

37 Using additional functions


# Smart Features


Viewing Multiple Screens or Features with Multi-Link Screen

38 Displaying Multiple Screens

Smart Hub

40 Removing or pinning an item in the Recent group

41 Launching Smart Hub automatically

41 Testing Smart Hub connections

41 Using the Smart Hub tutorial

41 Resetting Smart Hub

Using Smart Hub with a Samsung Account

42 Creating a Samsung account

43 Signing in to a Samsung account

43 Linking your Samsung account to external service accounts

44 Changing and adding information to a Samsung account

44 Deleting Samsung accounts from the TV

Using the Games service

45 Managing Games with the pop-up Options menu

46 Installing and running a game

47 Managing downloaded or purchased games

Using the Apps service

48 Managing Games with the pop-up Options menu

49 Installing an app

49 Enabling automatic game updates

50 Removing an app from the TV

50 Moving apps

50 Locking and unlocking apps

50 Updating apps

50 Rearranging apps

50 Rating purchased content

50 Using other app features and functions

Using the e-Manual

51 Launching the e-Manual

51 Using the buttons of e-Manual

Using the web browser

52 Browsing preferences

Using the My Content service

53 Read before playing media content

54 Playing multimedia content saved on a computer or mobile device

54 Playing media content saved on a USB device

55 Buttons and functions available while viewing photos

56 Buttons and functions available while viewing videos

58 Buttons and functions available while playing music

59 Functions on the media content list screen

Controlling the TV with Your Voice

61 Read before using Multi-Link Screen

61 Learning voice recognition basics

62 Using interactive voice recognition

62 Using the voice recognition tutorial

Controlling the TV using Motions (Motion Control)

63 Testing ambient illumination using the TV camera

64 Controlling the TV using motions

66 Select a pointer and adjust its speed.

Using Face Recognition

68 Registering your face to your samsung account

69 Changing your login method to face recognition

69 Signing in to a Samsung account using face recognition

# TV Viewing

Viewing Digital Broadcast Information at a Glance

70 Using the guide

71 Checking current program info

71 Changing the broadcast signal

71 Checking digital channel signal info and strength

Recording Programs

72 Recording programs

73 Using the functions available while recording a program

73 Using the remote control button while recording a program

73 Managing the schedule recording list

74 Viewing recorded programs

76 Managing recorded files

Setting Up a Schedule Viewing

77 Setting Up Schedule Viewing

77 Editing a schedule viewing

Using Timeshift

78 Using the remote control button while activating Timeshift function

Using the Channel List

Registering, Removing, and Editing Channels

80 Registering and removing channels

81 Editing registered channels

81 Locking/Unlocking the specific channels

Creating a Personal Favorites List

82 Registering channels as favorites

82 Viewing and selecting channels on Favorites lists only

83 Editing a Favorites List

Making Sports Programs More Realistic with Sports Mode

85 Enabling sports mode

85 Extracting highlights automatically

86 You can use the following functions when you press the Enter button in sports mode.

86 Using the functions available while recording sports in sports mode

87 Viewing a game recorded in sports mode

TV-Viewing Support Functions

88 Setting a service provider

88 Showing captions

89 Enabling the audio guide for the video description

89 Scanning for available channels

90 Selecting the broadcast audio language

90 Viewing 3D channels

90 Fine-tuning analog broadcasts

# Picture and Sound


### Adjusting the Picture Quality

91 Choosing a picture mode

92 Adjusting the picture quality

93 Adjusting advanced settings

94 Adjusting picture options

### Viewing in 3D

96 Starting 3D

97 Adjusting 3D effects

### Picture Support Functions

98 Viewing a picture-in-picture (PIP)

99 Changing the picture size and position

100 Listening to audio only (Picture Off)

100 Resetting the picture mode settings

### Adjusting the Sound Quality

101 Choosing a sound mode

102 Applying sound effects

### Using the Sound Support Functions

103 Selecting speakers

103 Specifying the TV's installation type

103 Listening to TV sound through a Samsung Bluetooth audio device

104 Listening to TV sound through a Samsung Multiroom Link compatible speaker

105 Listening to the TV through Bluetooth headphones

105 Enabling digital audio output

106 Listening to 3D audio in 3D mode

106 Resetting all sound settings


# System and Support


### Setting the Time and Using the Timer

107 Setting the current time

108 Using the timers

### Using the Screen Burn Protection and Energy Saving Functions

110 Preventing screen burn

110 Reducing the energy consumption of the TV

### Using Anynet+ (HDMI-CEC)

111 Setting up Anynet+ (HDMI-CEC)

111 Using Anynet+ (HDMI-CEC)

112 Read before connecting an Anynet+ (HDMI-CEC)

### Updating the TV's Software

113 Updating the TV's software to the latest version

113 Updating the TV automatically

### Protecting the TV from Hacking and Malicious Code

114 Checking the TV and connected storage for malicious code

114 Configuring additional functions

### Using Other Functions

115 Running the accessibility functions quickly

115 Enabling voice guides for the visually impaired

116 White text on black background (high contrast)

116 Adjusting the menu transparency

116 Enlarging font (for the visually impaired)

116 Learning about the remote control (for the visually impaired)

116 Listening to the TV through Bluetooth headphones (for the hearing impaired)

117 Changing the menu language

117 Setting up a password

117 Checking Notifications

117 Enabling game mode

118 Richer colors and superior picture quality (BD Wise)

118 Enabling/Disabling sound feedback

118 Locking/Unlocking the Control Stick

118 Showing/Hiding the Samsung logo while booting

118 Enabling the TV to boot faster

119 Registering the TV as a DivX-certified device (watching for pay DivX movies)

119 Restoring the TV to the factory settings

119 Using the TV as a display model (for retail stores)

# Troubleshooting


Getting support through Remote Management

120 Finding the contact information for service

120 Requesting service

There Is a Problem with the Picture

121 Testing the picture

I Can't Hear the Sound Clearly

123 Testing the sound

I Can't See 3D Images Clearly

124 Testing 3D picture quality

There Is a Problem with the Broadcast

My Computer Won't Connect

I Can't Connect to the Internet

The Schedule Recording/Timeshift Function Isn't Working

Anynet+ (HDMI-CEC) Isn't Working

I Have Trouble in Launching/Using Apps

My File Won't Play

I Want to Reset the TV

Other Issues


# Precautions and Notes


Before Using the Recording and Timeshift Functions

130 Before using the recording and schedule recording functions

131 Before using the timeshift function

Read Before Using 3D Mode

132 3D precautions

Supported Resolutions for 3D Modes

135 HDMI

135 Component

135 Digital channel

135 Videos/Photos

135 Computer via HDMI cable

Supported Resolutions for each of UHD Input Signals

136 If HDMI UHD Color is set to Off

136 If HDMI UHD Color is set to On

Read Before Using Voice, Motion, or Face Recognition

137 Precautions for voice, motion, and face recognition

138 Voice Recognition

138 Requirements for using voice, motion, or face recognition

Read Before Using Apps

Read Before Using the Web Browser

Read Before Playing Photo, Video, or Music Files

142 Limitations on use of photo, video, and music files

143 Supported external subtitles

143 Supported internal subtitles

144 Supported image formats and resolutions

144 Supported music formats and codecs

145 Supported video codecs

Read After Installing the TV

147 Picture sizes and input signals

148 Read before setting up a wireless Internet connection

Read Before Connecting a Computer (Supported Resolutions)

149 IBM

149 MAC

150 VESA DMT

Supported Resolutions for Video Signals

151 CEA-861

Read Before Using Bluetooth Devices

152 Restrictions on using Bluetooth

License

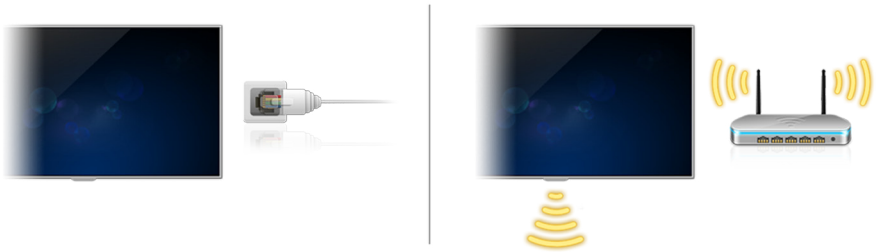
Glossary

# Using Smart Hub

## Connecting to the Internet

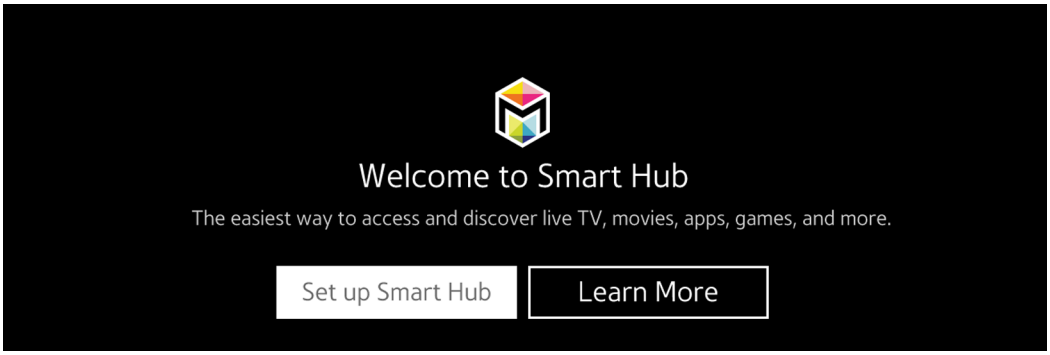
(메뉴/123) > 메뉴 > Network > Network Settings

Connect the TV to the Internet. You can use a wired or wireless connection.



## Setting up Smart Hub

Press the on the remote control. When you start Smart Hub for the first time, the Set Up Smart Hub screen appears. Follow the instructions on the screen to configure the required settings and complete the setup.




## Using Smart Hub

Enjoy the multiple functions provided by Smart Hub on a single screen.

For more information, refer to 'Smart Hub.'

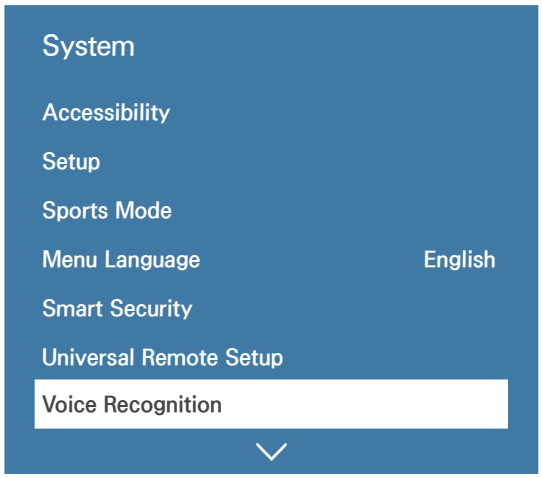
# Controlling the TV with Your Voice

This function is only supported by the models with the Samsung Smart Control.

## Setting up Voice Recognition

(메뉴/123) > 메뉴 > System > Voice Recognition

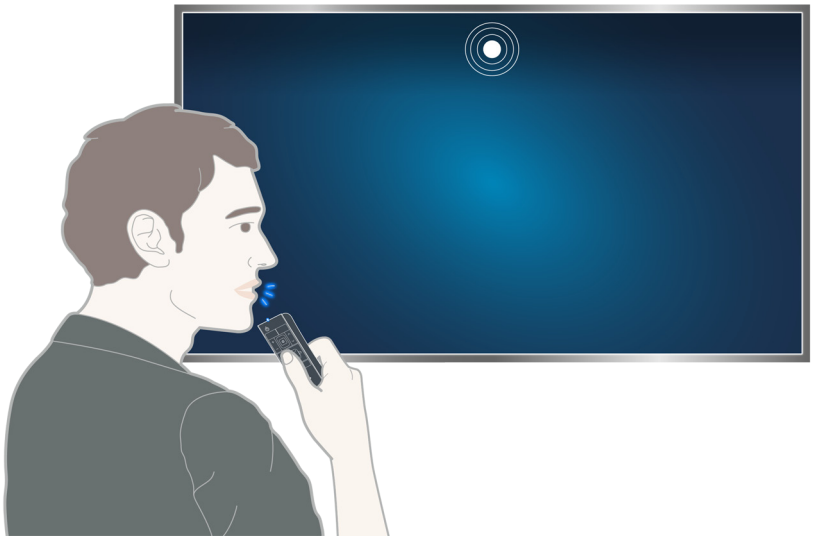
Configure the settings required for voice recognition, such as the language to use and whether to use TV Voice.




Your TV's menu may differ from the image above, depending on the model.

## Controlling the TV with your voice

Press and hold the 메뉴/123 button on the Samsung Smart Control. The Voice Recognition screen appears. When the Voice Reconition icon appears on the screen, say the commands slowly, in a moderately loud voice, into the microphone on the Samsung Smart Control.



For more information, refer to 'Controlling the TV with Your Voice.'

# Controlling the TV with Your Motion

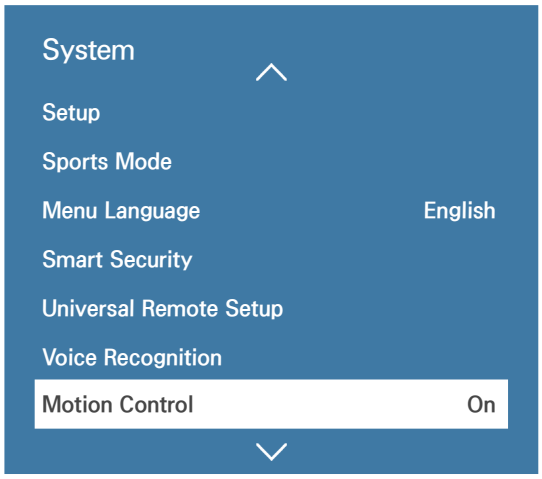
This function is only supported for the 6800 series model or higher.

You must connect to the optional TV camera (sold separately) to use this function.

## Setting up Motion Control

(메뉴/123) > 메뉴 > System > Motion Control

Perform the Motion Control Environment Test, and then configure the settings required to run motion control, such as adjusting the Pointer Speed.

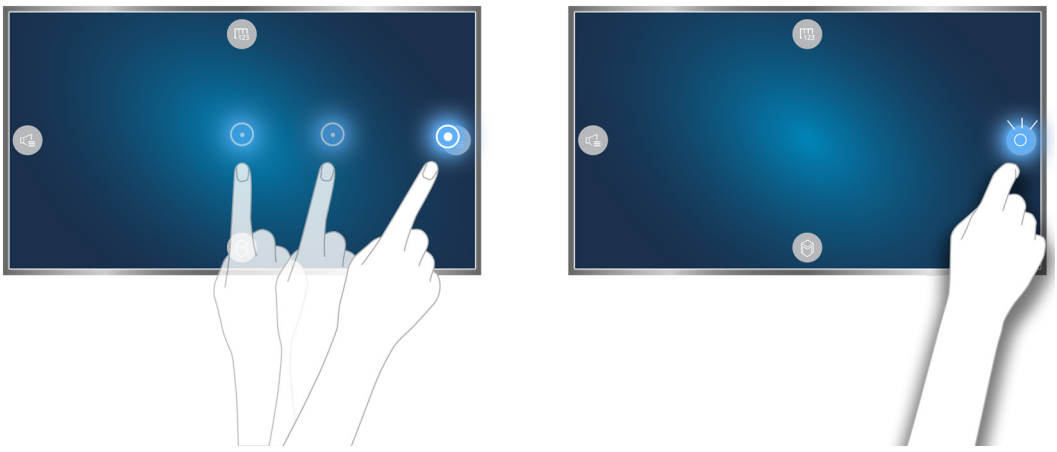



Your TV's menu may differ from the image above, depending on the model.

## Controlling the TV using motions

(메뉴/123) > 메뉴 > System > Motion Control > Motion Control

1. Set Motion Control to On.
2. Face the TV camera, raise your hand to a comfortable position, and then move your index finger to the left or right slowly with it fully extended upwards.
3. Curl your index finger down and then raise it again to run the pointed function.



Motion Control is available in either direction control or motion pointing mode.

For more information, refer to 'Controlling the TV using Motions (Motion Control).'

# Using the Samsung Smart Control

Samsung Smart Control is only provided with the 6900, 7000 and 7500 series model or higher.

## Operating the TV with the POINTER button

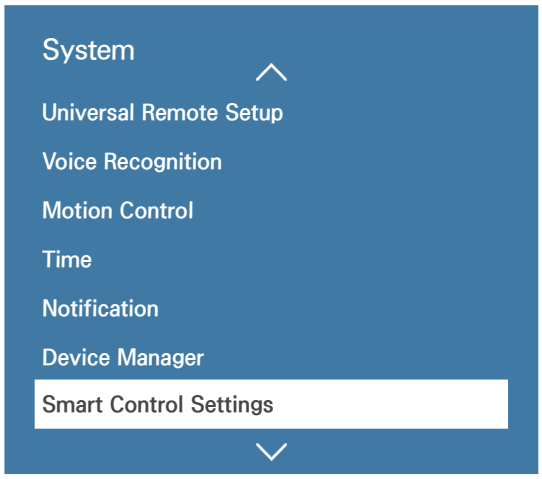
Place a finger on the POINTER button and move the Samsung Smart Control. The pointer on the screen moves in the direction you moved the Samsung Smart Control. Move the pointer to one of the following icons on the screen, and then press the POINTER button.

- : Displays the On-Screen Remote.
- : Allows you to adjust the volume or select speakers.
- : Displays the channel list.
- : Launches Smart Hub.

# Setting up the Samsung Smart Control

(메뉴/123) > 메뉴 > System > Smart Control Settings

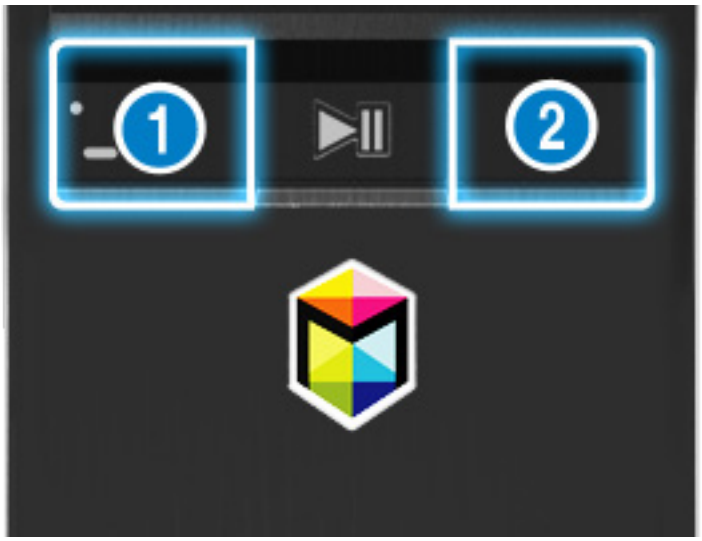
Set the Motion Sensitivity and Haptic Feedback of the Samsung Smart Control.




Your TV's menu may differ from the image above, depending on the model.

# Pairing the TV to the Samsung Smart Control

When you turn on the TV for the first time, the Samsung Smart Control pairs to the TV automatically. To re-pair it to the TV, press the ① and ② buttons on the Samsung Smart Control simultaneously for 3 seconds or more.

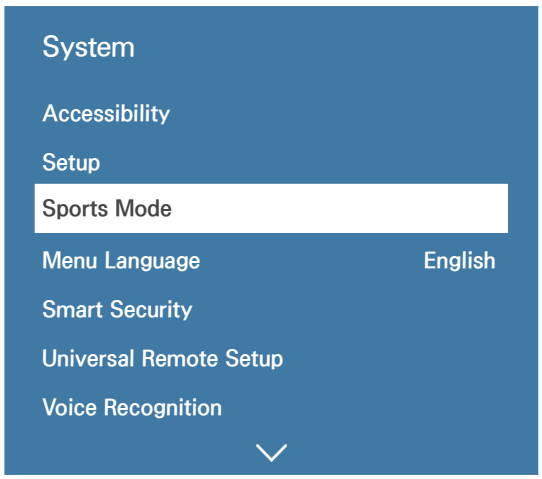


# Improving the Viewing Experience of Sports Events

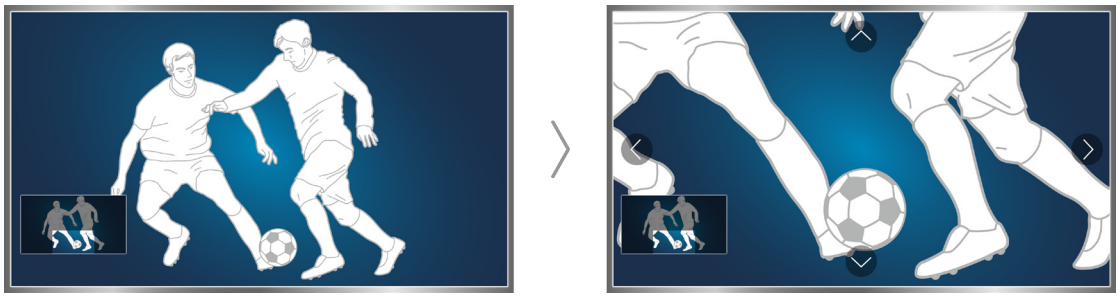
## Activating sports mode

(메뉴/123) > 메뉴 > System > Sports Mode > On

Set Sports Mode to On. The TV automatically configures the picture and sound settings so that they are suitable for Sports events.




Your TV's menu may differ from the image above, depending on the model.

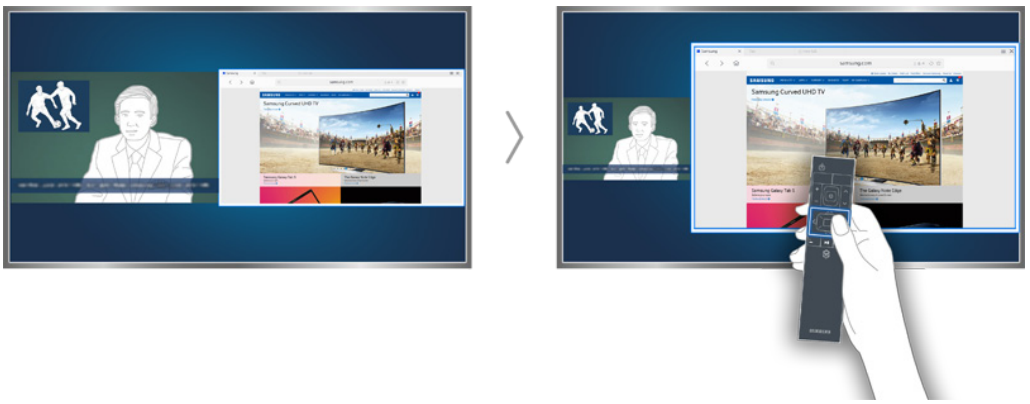


You can zoom in the screen while you are using the sports mode. Move the focus to the part of screen to magnify.

For more information, refer to 'Making Sports Programs More Realistic with Sports Mode.'

# Displaying Multiple Screens

You can change the size of each screen by dragging the circle in the middle of the screen to the left or right.



For more information, refer to 'Viewing Multiple Screens or Features with Multi-Link Screen.'

# Connecting an Antenna

Connect a cable from an antenna or cable wall outlet to the ANT IN connector, as shown in the image below.

An antenna connection is not necessary if you connect a cable box or satellite receiver.

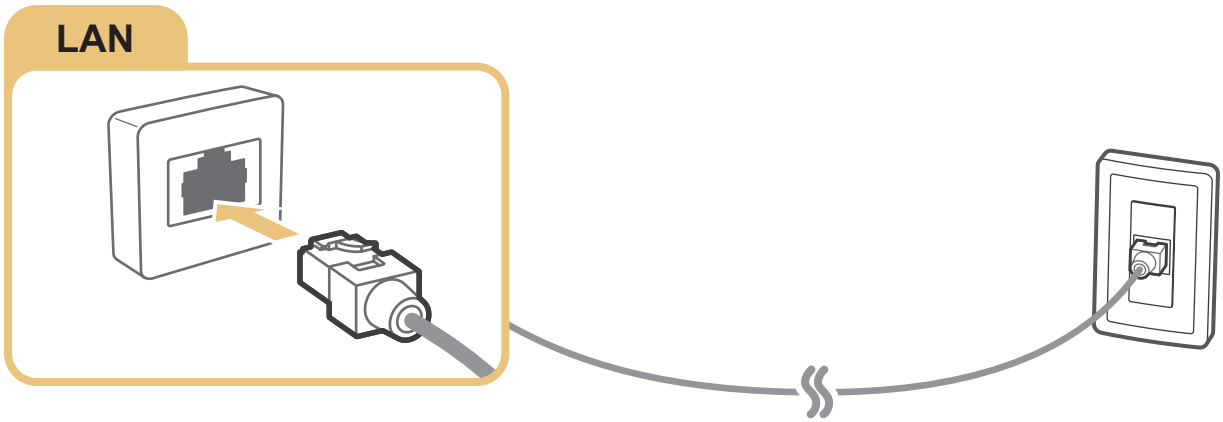
# Connecting to the Internet

## Establishing a wired Internet connection

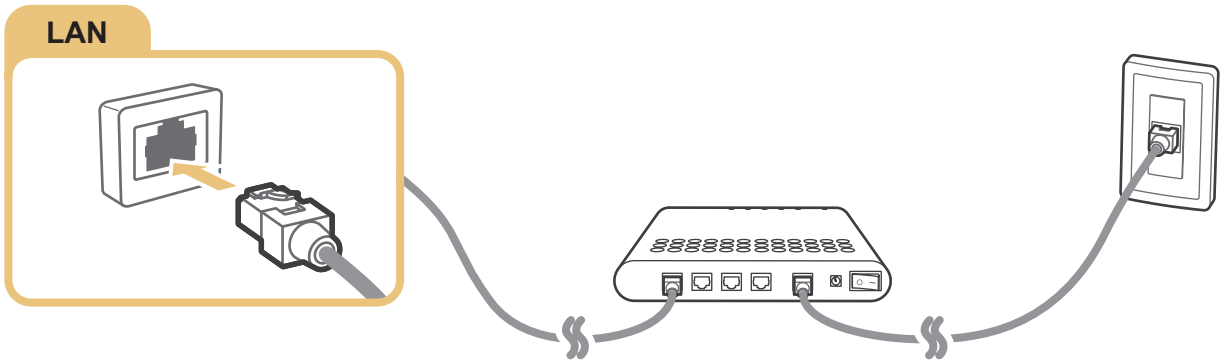
### Using LAN cables

There are three ways to connect the TV to your Internet access points, as shown in the following illustrations:

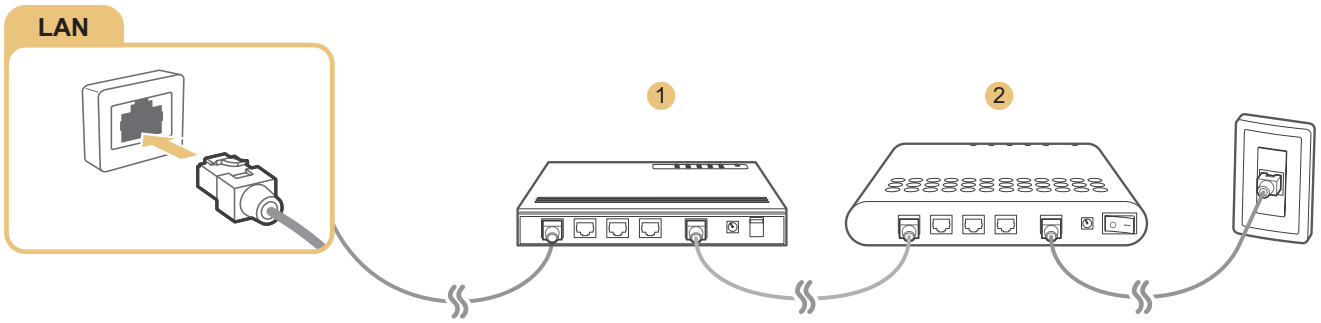
- Wall-mounted LAN Outlet




- External Modem



- ① IP Router + ② External Modem




We recommend using Cat 7 LAN Cables Cat 7 LAN cables to link your TV to the Internet Access Points.

The TV will not be able to connect to the Internet if the network speed is below 10Mbps.

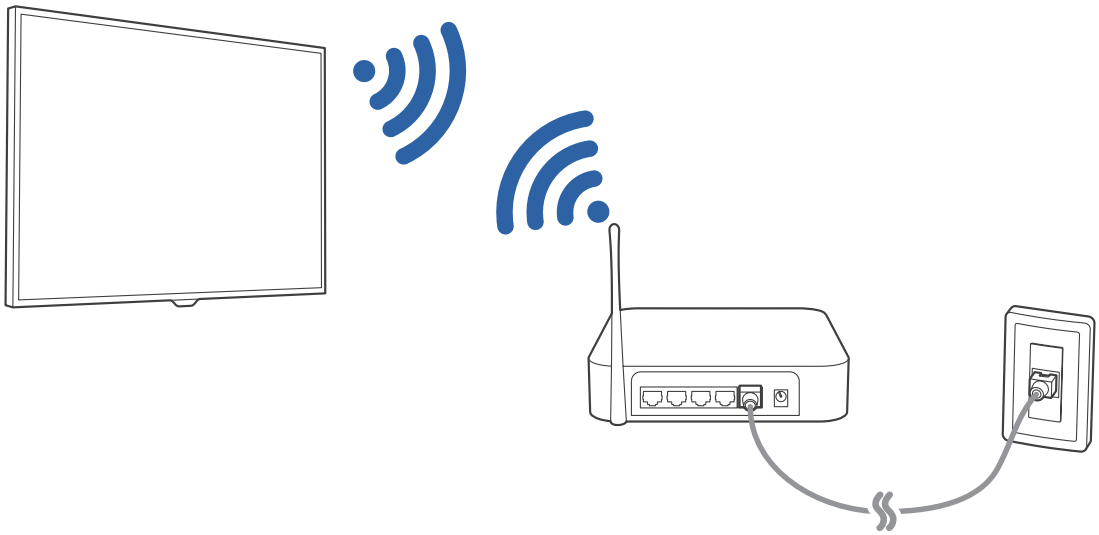
## Connecting to a wired Internet network automatically

(메뉴/123) > 메뉴 > Network > Network Settings Try Now

Automatically connect to an available network.

1. Select **Wired**.
2. Once the network connection has been made, you will see a confirmation message. If the connection fails, try again or connect manually.

# Establishing a wireless Internet connection



## Connecting to a wireless internet network automatically

(메뉴/123) > 메뉴 > Network > Network Settings

Make sure that you have the wireless router's SSID (name) and password settings before attempting to connect.

1. Select **Wireless**. The TV automatically displays a list of available wireless networks.
2. Select a network. If the network you want doesn't appear in the list, select **Add Network**, and then enter the network's SSID (name) manually.
3. If your network is security enabled, enter the password. If your network is not security-enabled, the TV will bypass the on-screen keyboard and attempt to connect right away.

## Connecting to a wireless internet network with WPS

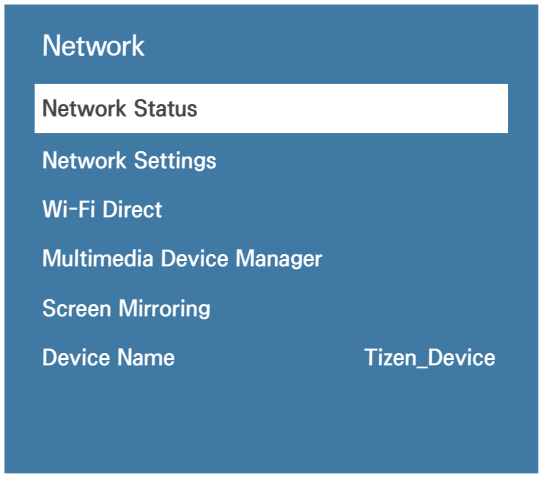
(메뉴/123) > 메뉴 > Network > Network Settings

If the router has a WPS (Wi-Fi protected setup) push button, you can use it to connect the TV to the router automatically.

1. Select **Stop** and then select **WPS(PBC)**.
2. Press the WPS or PBC button on your wireless router within the next two minutes.
3. The TV connects to the network automatically.

## Checking the internet connection status

(메뉴/123) > 메뉴 > Network > Network Status Try Now




Your TV's menu may differ from the image above, depending on the model.

View the current network and Internet status.

## Changing the name of the TV on a network

(메뉴/123) > 메뉴 > Network > Device Name Try Now

You can change a name for the TV that will appear on mobile devices and laptop computers.

1. Select **Device Name** from the **Network** menu.
2. Select a name from the list that appears. Alternatively, select **User Input** to enter a name manually.

# Troubleshooting Internet Connectivity Issues

## Troubleshooting wired Internet connectivity issues Try Now

### No network cable found

Make sure that the network cable is plugged in. If it is connected, make sure that the router is turned on. If it is on, try turning if off and on again.

### IP auto setting failed

Do the following or configure the **IP Settings** manually.

1. Make sure that the DHCP server is enabled on the router, and then reset the router.
2. If the problem persists, contact your Internet Service Provider.

### Unable to connect to the network

Please check the following:

1. Check all **IP Settings**.
2. Make sure that the DHCP server is enabled on the router. Then, unplug the router and plug it back in.
3. If the problem persists, contact your Internet Service Provider.

### Connected to a local network, but not to the Internet

1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
2. Check the DNS values in **IP Settings**.
3. If the problem persists, contact your Internet Service Provider.

### Network setup is complete, but unable to connect to the Internet

If the problem persists, contact your Internet Service Provider.

# Troubleshooting wireless Internet connectivity issues

## Wireless network connection failed

If a selected wireless router is not found, go to **Network Settings** and select the correct router.

## Unable to connect to a wireless router

Please check the following:

1. Check if the router is turned on. If it is, turn it off and on again.
2. Enter the correct password if required.

## IP auto setting failed

Do the following or configure the **IP Settings** manually.

1. Make sure that the DHCP server is enabled on the router. Then, unplug the router and plug it back in.
2. Enter the correct password if required.
3. If the problem persists, contact your Internet Service Provider.

## Unable to connect to the network

Please check the following:

1. Check all **IP Settings**.
2. Enter the correct password if required.
3. If the problem persists, contact your Internet Service Provider.

## Connected to a local network, but not to the Internet

1. Make sure that the Internet LAN cable is connected to the router's external LAN port.
2. Check the DNS values in **IP Settings**.
3. If the problem persists, contact your Internet Service Provider.

## Network setup is complete, but unable to connect to the Internet

If the problem persists, contact your Internet Service Provider.

# Connecting Video Devices

Your TV has a variety of connectors for video input from external devices. Below is a list of featured connectors shown in descending order of picture quality.

- HDMI
- Component
- Composite (A/V)

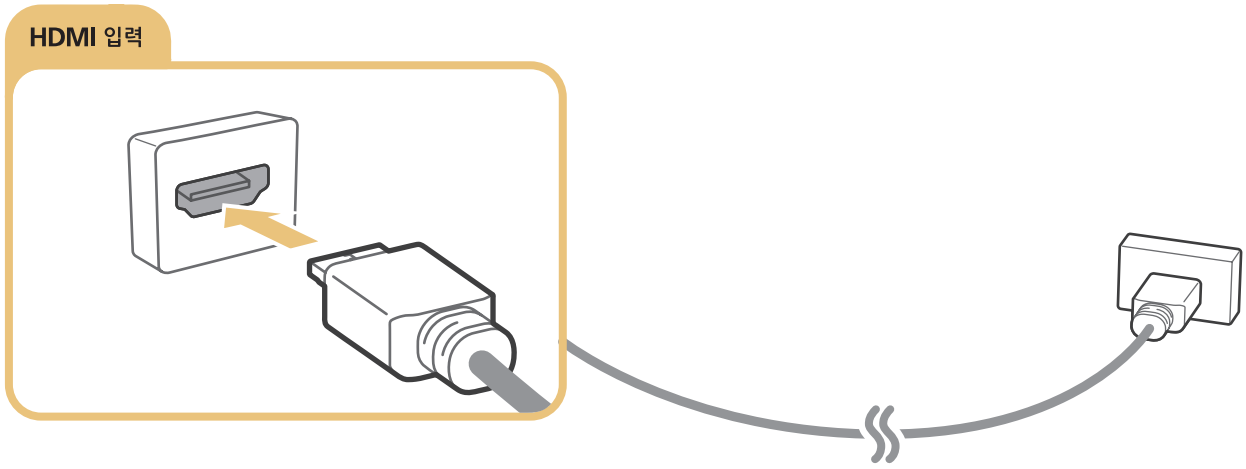
Connect a video device to the TV with an HDMI connector for the best picture quality. If the device does not have an HDMI connector, try a component connector.

## Connecting with an HDMI cable

The following types of HDMI cables are recommended:

- High-Speed HDMI Cable
- High-Speed HDMI Cable with Ethernet

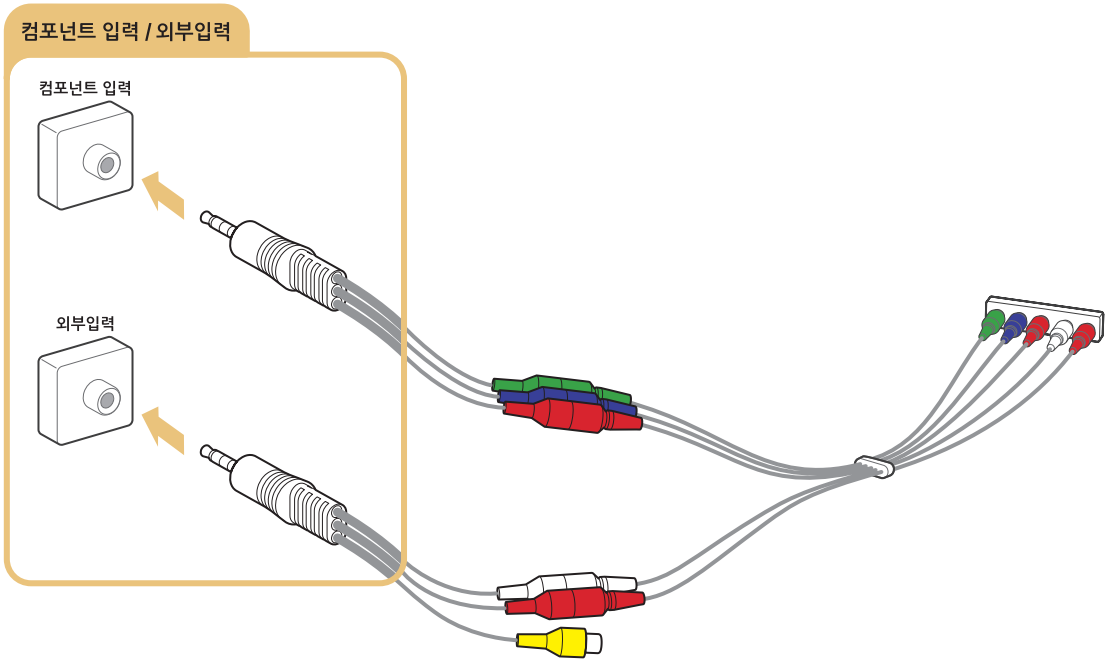
Connect the HDMI cable to the HDMI output connector of the video device and the HDMI input connector of the TV as shown in the image below.



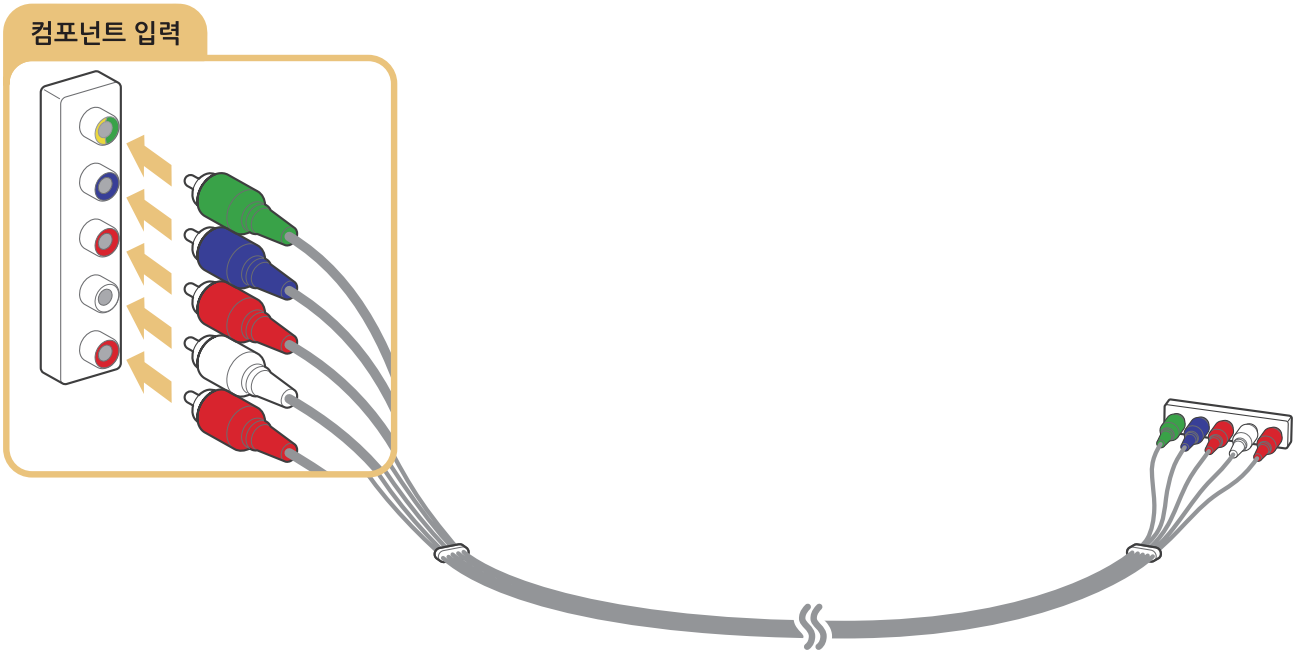
# Connecting with a component cable

Connect the component cable to the component input connectors of the TV and the component output connectors of the device as shown in the image below. Make sure to connect the same color connectors together.

## The models with the One Connect Mini



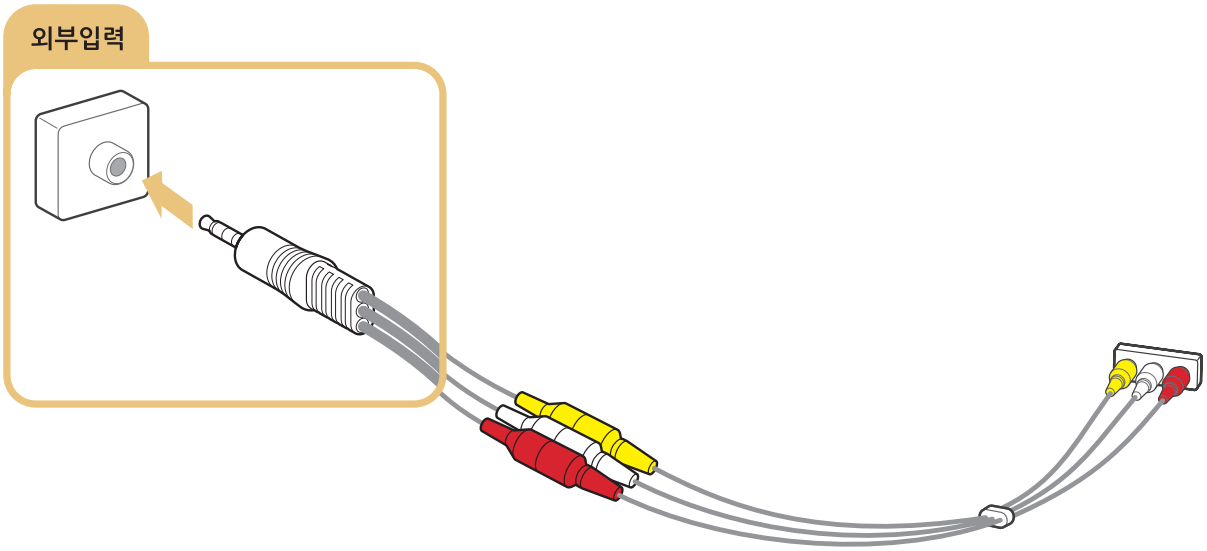

## The models without the One Connect Mini



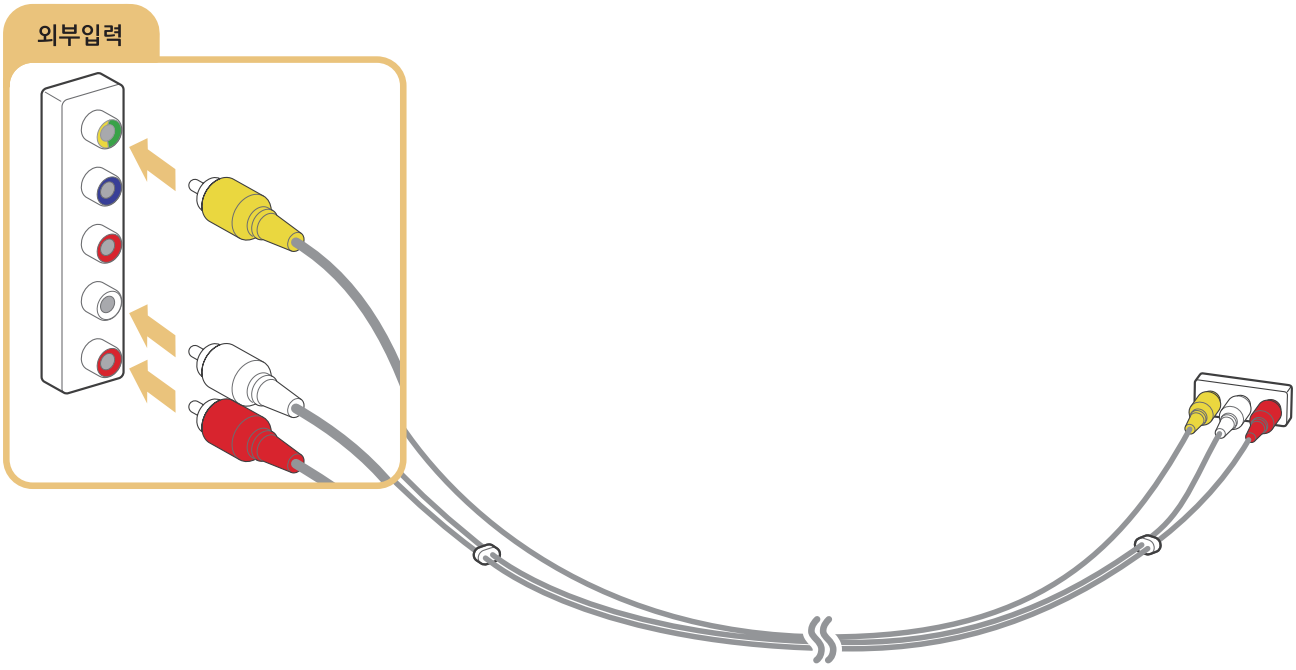
# Connecting with a composite (A/V) cable

Connect the AV cable to the input connectors of the TV and the AV output connectors of the device as shown in the image below. If you are using the AUDIO OUT / COMPONENT IN / AV IN  connectors on the TV, connect the AV cable to the AUDIO / COMPONENT / AV Adapter (accessory) and connect it to the AUDIO OUT / COMPONENT IN / AV IN  connector on the TV and the AV output connectors of the device.

## The models with the One Connect Mini




## The models without the One Connect Mini



# Audio Input and Output Connections

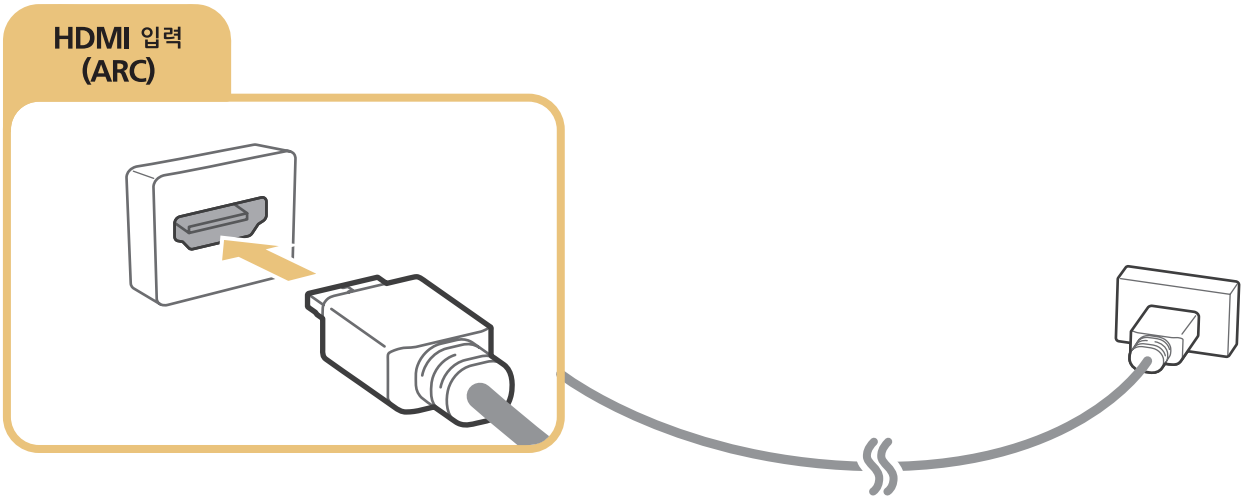
Your TV has a variety of connections for audio input from external devices. The connections are listed below.

- HDMI/ARC (Audio Return Channel)
- Digital Audio (Optical)
- Audio (Analog)

## Connecting with an HDMI (ARC) cable

ARC (Audio Return Channel) lets the TV output digital sound to an audio device and input digital sound from the same audio device through one HDMI cable. ARC is only available through the HDMI (ARC) port and only when the TV is connected to an ARC-enabled AV receiver.

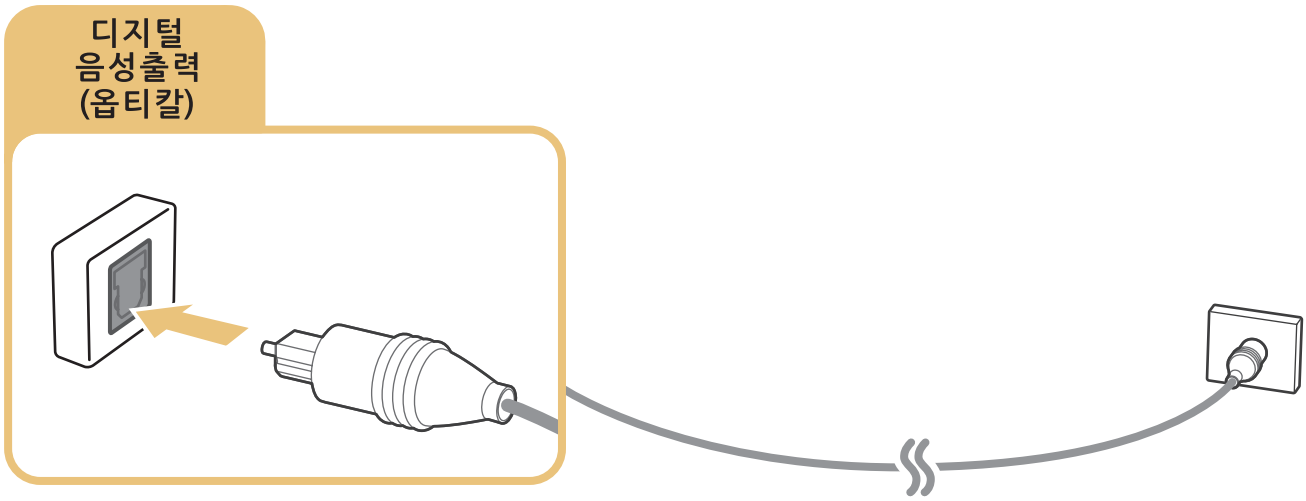
Connect an HDMI cable to the HDMI (ARC) input connector of the TV and the HDMI output connector of the device as shown in the image below.



## Connecting with a digital audio (optical) cable

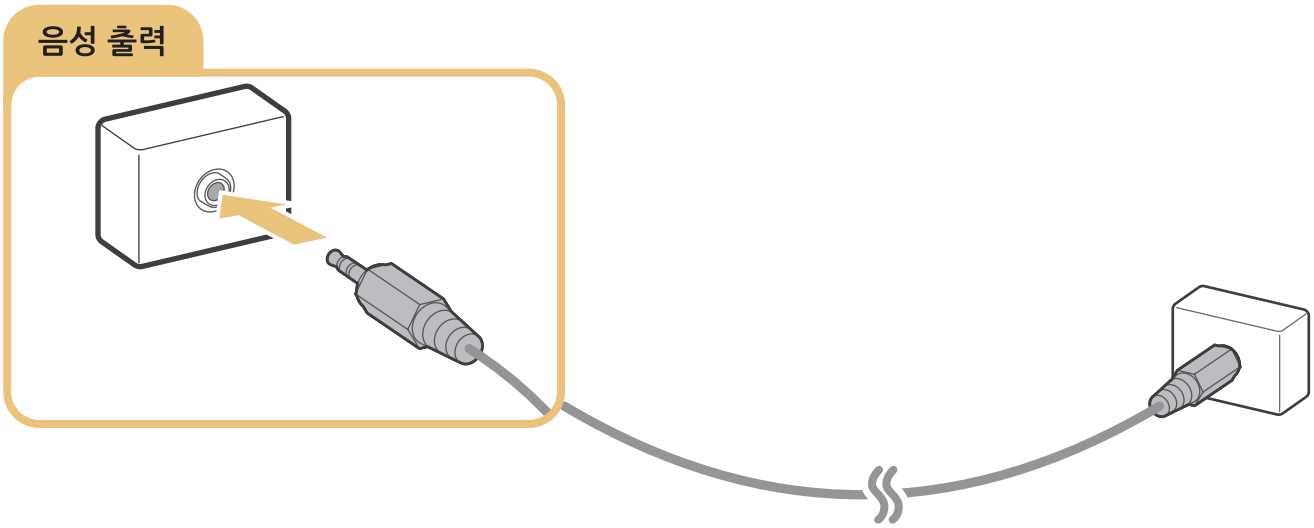
You can listen to digital audio by connecting an AV receiver to the TV via a digital audio (optical) cable.

Connect the optical cable to the digital audio output connector of the TV and the digital audio input connector of the receiver as shown in the image below.




## Connecting with a stereo audio cable

Connect an audio cable to the audio output connector of the TV and the audio input connector of the device as shown in the graphic below.



# Connecting a Computer

The kinds of connections you can make are listed below.

**To use the TV as a computer monitor**

- Connect through the HDMI port with an HDMI cable.
- Connect though the HDMI (DVI) port with an HDMI-to-DVI cable.

**To view or play the content saved in a computer on the TV**

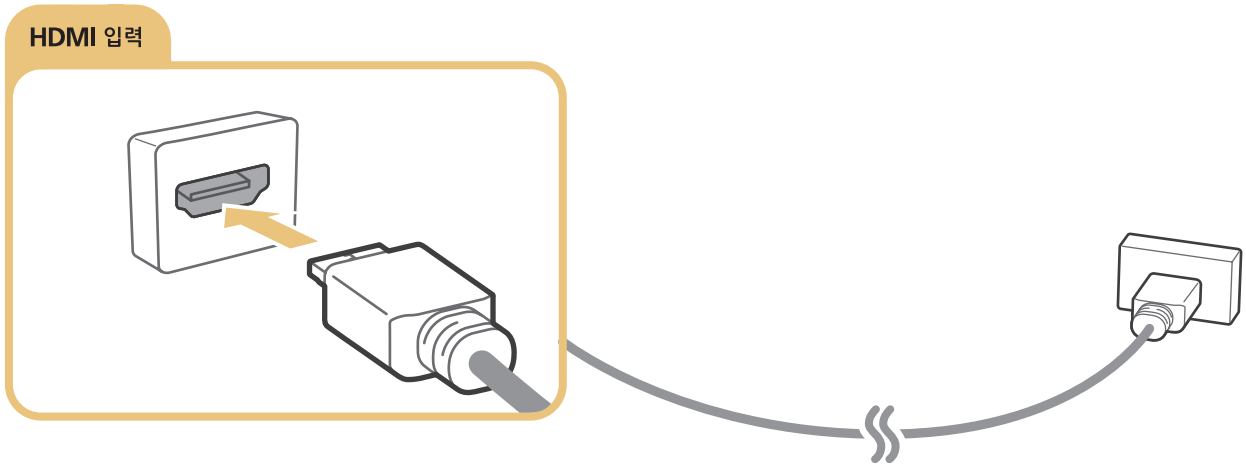
- Connect through using your home network.

## Connecting with an HDMI cable

The following types of HDMI cables are recommended:

- High-Speed HDMI Cable
- High-Speed HDMI Cable with Ethernet

Connect the HDMI cable to the HDMI output connector of the video device and the HDMI input connector of the TV as shown in the image below.

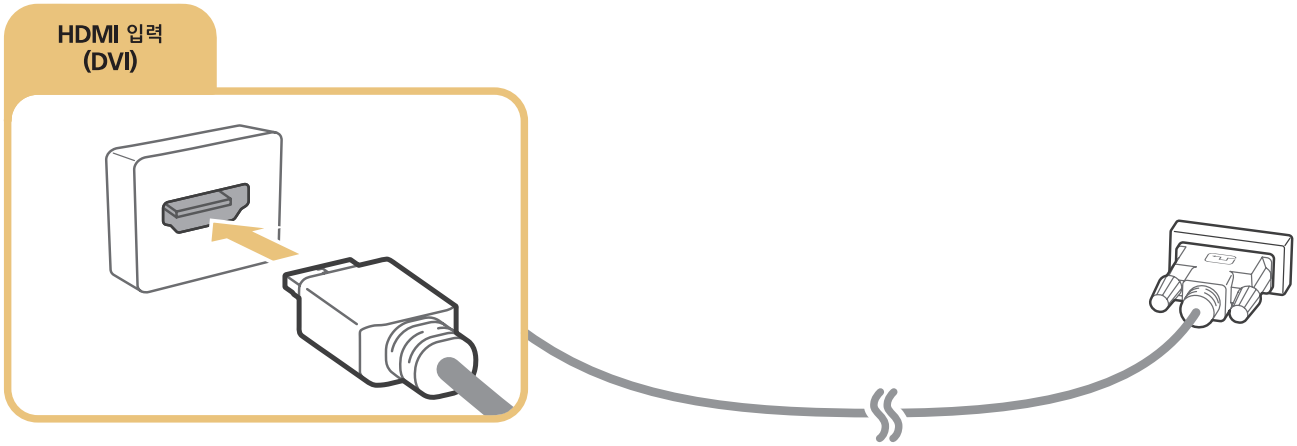



Set **Edit Device Type**을 **DVI PC** for a computer connected with a HDMI-to-DVI cable, and **PC**for a computer connected with HDMI cable. Also, set **Edit Device Type** to **DVI Device** for an A/V device with a HDMI-to-DVI cable.

## Connecting through the HDMI port

If the graphics adapter of your TV does not support the HDMI interface, connect the computer to the TV with a DVI (Digital Visual Interactive) -to-HDMI cable. Note that the HDMI-to-DVI connection is only supported by the HDMI (DVI) port and does not transmit audio. To listen to the computer sound, connect external speakers to the audio output connector of the computer.

Connect the HDMI-to-DVI cable to the HDMI (DVI) port of TV and the DVI output port of the computer as shown in the image below.




## Connecting through your home network

You can quickly access and play photo, video, and music files stored on a computer on the TV.

1. Connect the TV and the computer to the same router or AP. Once you connect them to the same router or AP, a home network is configured.
2. On the computer, select [Control Panel] > [Network and Internet] > [Network and Sharing Center] > [Change advanced sharing settings], and select [Choose media streaming options...] to activate media streaming.
3. From the list, set the TV to [Allowed].

For more information about playing content, refer to 'Playing multimedia content saved on a computer or mobile device.'

# Connecting a Mobile Device

You can connect a mobile device such as a smartphone or tablet directly to the TV, or connect it to the network and display the mobile device's screen or play its content on the TV.

Connect your mobile device with the following.

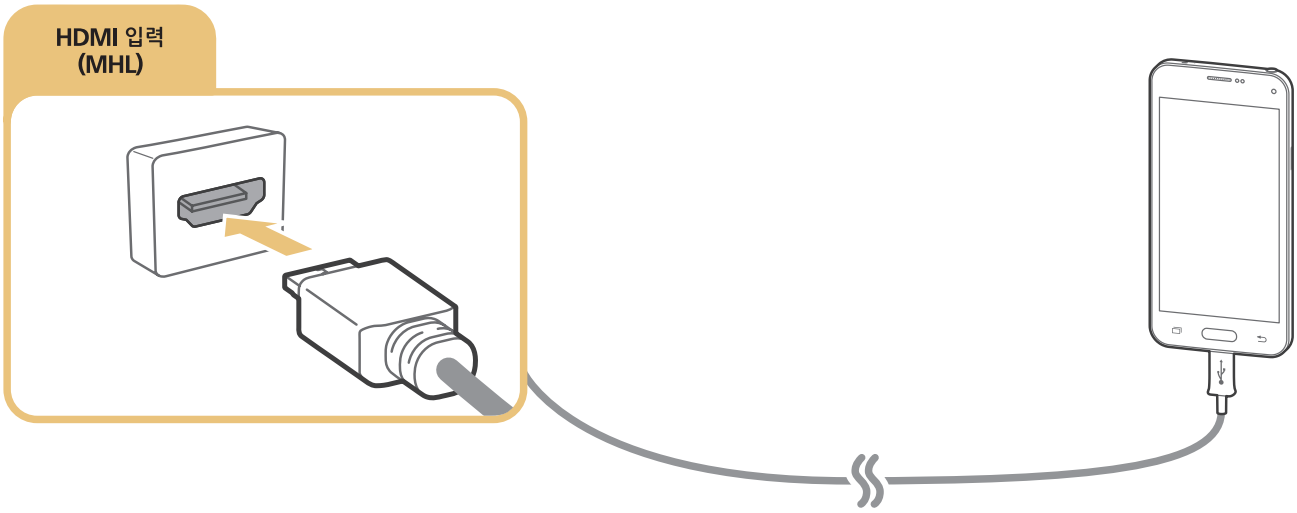
- **View the mobile device's screen on the TV screen by using an MHL-to-HDMI cable.**
- **Connect by mirroring the mobile device's screen on the TV (Screen Mirroring).**
- **Connect mobile devices without a wireless router (Wi-Fi Direct).**
- **Connect via Samsung Smart View 2.0.**

## Connecting with an MHL-to-HDMI Cable

You can use the Mobile High-definition Link (MHL) function to display a mobile device's screen on the TV. However, MHL is only available through the TV's HDMI (MHL) port and only when used in conjunction with an MHL-enabled mobile device. For information on configuring MHL on your mobile device, refer to the device's User Manual.

If you connect a mobile device to the TV with an MHL-to-HDMI cable, the TV automatically switches the picture size of each content saved on the mobile device to the original picture size of that content.

Connect the MHL-to-HDMI cable to the HDMI (MHL) input connecter of the TV and the mobile device's USB port as shown in the image below.



# Using Screen Mirroring

(메뉴/123) > 메뉴 > Network > Screen Mirroring Try Now

You can wirelessly connect a mirroring-enabled mobile device to the TV and play the video and audio files stored on the device on the TV. Mirroring refers to the function that plays the video and audio files located on a mobile device on a TV and on the mobile device simultaneously.

## Connecting via a mobile device

1. Launch the **Screen Mirroring** function on your mobile device. The mobile device searches for available devices to connect to.
2. Select the TV from the list, and then enter the password. The TV automatically allows the connection and the device connects.
3. Select **Allow** to connect the mobile device.

   All previously allowed mobile devices will automatically connect without needing approval.

   If you select **Deny**, the device cannot connect. To change the connection status of a denied device, Select (메뉴/123) > 메뉴 > **Network** > **Multimedia Device Manager**, select the device, and select **Allow**.

## Connecting by automatically allowing the connection

1. Select **Network** > **Screen Mirroring**, You can also start screen mirroring by pressing the 외부입력 button on your remote and selecting **Screen Mirroring** from the list at the top of the screen.
2. Launch the Screen Mirroring function on your mobile device. The mobile device searches for available devices to connect to.
3. Select the TV from the list. The TV automatically allows the connection and the device connects.

   If the mobile device cannot connect, turn the TV and mobile device off and then on.

# Connecting mobile devices without a wireless router (Wi-Fi Direct)

(메뉴/123) > 메뉴 > Network > Wi-Fi Direct > Wi-Fi Direct Try Now

You can connect a mobile device with the Wi-Fi Direct feature directly to the TV without using a wireless router or AP. By connecting a mobile device to the TV through **Wi-Fi Direct**, you can play photo, video, and music files saved on the mobile device on the TV.

1. Enable Wi-Fi Direct on the mobile device, and then run **Wi-Fi Direct** on the TV. The TV automatically scans for and displays a list of available devices. The TV's name also appears on the mobile device.
2. Select the device from the list to initiate a connection. If a connection request is made by the TV, a permission message appears on the mobile device and vice versa.
3. Allow the connection. The TV and mobile device connect.

For more information about playing content, refer to 'Playing multimedia content saved on a computer or mobile device.'

To confirm the mobile devices that allows or denies the connection, select (메뉴/123) > 메뉴 > Network > Multimedia Device Manager.

When you place the mobile device closer to the TV with Wi-Fi Direct activated, the connection allowance confirmation window appears on the left bottom of the screen so that you can easily connect it.

## Managing the connection status of previously connected mobile devices

1. Select (메뉴/123) > 메뉴 > Network > Multimedia Device Manager. The TV displays a list of devices that have previously connected to the TV or have tried to connect to the TV and been denied. The status of the connection (Allow/Deny) is also displayed.
2. Select connection type or delete the device from the list.

This function is only available if the devices have previously connected to the TV or have previously attempted to connect and been denied.

# Connecting via Samsung Smart View 2.0

When you install and then launch Samsung Smart View 2.0 on a mobile device connected to the TV, you can play the mobile device's multimedia content, such as videos, photos, and music, on the TV. You can also send text messages or control the TV using the mobile device.

This function is only available on certain models.

# Changing the input signal with external devices

Press the **외부입력** button to switch between external devices connected to the TV.

- **Options**

  Select connected external device port, press the down directional button. The functions that appear in the Options menu can include any of the following:

  Press the **간편메뉴** button or press and hold the Enter button on the standard remote control.

  The connector names may vary depending on the product.

  - **Edit Device Type**: Changes the types of the external devices. Select an external device to change.
  - **Edit Name**: You can rename devices connected to the TV to facilitate identifying external sources. For example, you can select the name **PC** for a PC connected to an HDMI connection and **Blu-ray** for a Blu-ray player connected to another HDMI connection. When you display the source list, the TV displays the name of each connection and the name of the device connected to each connection.
  - **Information**: Displays information about the connected devices.
  - **Anynet+ (HDMI-CEC)**: Displays a list of Anynet+ (HDMI-CEC)-compliant devices that are connected to the TV.

    This option is only available when **Anynet+ (HDMI-CEC)** is set to **On**.
  - **Remove USB Device**: Removes a USB device connected to the TV.
  - **Remove Last Viewed Image**: Removes the captured images of the video that you viewed most recently saved on the external device connected to the TV.

    This function is only available on certain models.
  - **Delete Universal Remote**: Deletes the external device connected to the TV via the Universal Remote function.

    This function is only available on certain models.

- **Universal Remote Setup**

  You can use your TV remote control to control external devices.

  This function is only available on certain models.

  For more information on using the Universal Remote function, refer to 'Controlling External Devices with the TV Remote - Using the Universal Remote.'

# Connection Notes

- The number of connectors and their names and locations may vary depending on the model.
- Refer to the external device's operating manual when connecting it to the TV. The number of external device connectors and their names and locations may vary depending on the manufacturer.

## Connection notes for HDMI

- Use an HDMI cable with a thickness of 0.55 inches (14 mm) or less.
- Using a non-certified HDMI cable may result in a blank screen or a connection error.
- Some HDMI cables and devices may not be compatible with the TV due to different HDMI specifications.
- This TV does not support HDMI Ethernet Channel. Ethernet is a Local Area Network (LAN) built with coaxial cables standardized by the IEEE.
- Try a cable shorter than 3M to get the best UHD viewing quality.
- Many computer graphics adaptors do not have HDMI ports, but have DVI ports instead. If your computer graphics adaptor has a DVI port, use an HDMI-to-DVI cable to connect the computer to the TV.

  For more information, refer to 'Connecting through the HDMI port.'
- If you are using an HDMI adapter, the TV recognizes the signal as an HDMI signal and may respond differently than it would to an MHL-to-HDMI cable connection.
- Certain functions such as Smart Hub may not be available if the **Source** is set to HDMI and **3D Auto View** is set to **Auto1** or **Auto2**. If this is the case, set **3D Auto View** or **3D Mode** to **Off**.

## Connection notes for audio devices

- For better audio quality, it is a good idea to use an AV receiver.
- Connecting a device using an optical cable does not automatically turn off the TV speakers. To turn off the TV's speakers, set **Speaker Select** ((**메뉴/123**) > **메뉴** > **Sound** > **Speaker Settings** > **Speaker Select**) to something other than TV Speaker.
- An unusual noise coming from the audio device while you are using it may indicate a problem with the audio device itself. If this occurs, ask for assistance from the audio device's manufacturer.
- Digital audio is only available with 5.1-channel broadcasts.

## Connection notes for computers

- For the resolutions supported by the TV, refer to 'Read Before Connecting a Computer (Supported Resolutions).'
- As long as file sharing is activated, unauthorized access may occur. When you do not need to access data, disable file sharing.
- Your PC and Smart TV must be connected to each other on the same network.

## Connection notes for mobile devices

- To use the Screen Mirroring function, the mobile device must support a mirroring function such as AllShare Cast or Screen Mirroring. To check whether your mobile device supports the mirroring function, please visit the mobile device manufacturer's website.
- To use Wi-Fi Direct, the mobile device must support the Wi-Fi Direct function. Please check if your mobile device supports Wi-Fi Direct.
- The mobile device and your Smart TV must be connected with each other in the same network.
- The video or audio may intermittently stop, depending on network conditions.

# About the Samsung Smart Control

Samsung Smart Control is only provided with the 6900, 7000 and 7500 series model or higher.

| Button | Description |
| --- | --- |
| | Press this button to mute the sound temporarily. Press and hold this button to bring up the Accessibility Shortcuts menu that enables or disables the Accessibility menu functions ((메뉴/123) > 메뉴 > System > Accessibility). |
| 메뉴/123 | Displays numeric buttons, content control button, and other function buttons on the screen so that you can run a function conveniently. Press and hold this button to run the Voice Recognition function.<br>For more information, refer to 'Displaying and using the On-Screen Remote.' |
| 포인터 | Place a finger on the 포인터 button and move the Samsung Smart Control. The pointer on the screen moves in the direction you moved the Samsung Smart Control. Press the 포인터 button to select or run a focused item.<br>For more information, refer to 'Using the Samsung Smart Control.' |
| , , , (4 Directional buttons) | Moves the focus, and changes the values seen on the TV's menu. |
| (Enter button) | Selects or runs a focused item. Press and hold this button to launch the Guide while you are watching the TV. |
| 복귀 | Returns to the previous menu or channel.<br>• 종료: Press and hold to exit the currently running function on the TV's screen. |
| | Launches Smart Hub applications. |
| , | Controls the content when playing movies or music or viewing pictures. |
| 부가정보 | Displays related information about the current program. |
| 외부입력 | Displays and selects the available video sources. |

Use the Samsung Smart Control at a distance of less than 6m. The usable distance may differ with the wireless environmental conditions.

The above image may differ depending on the model.

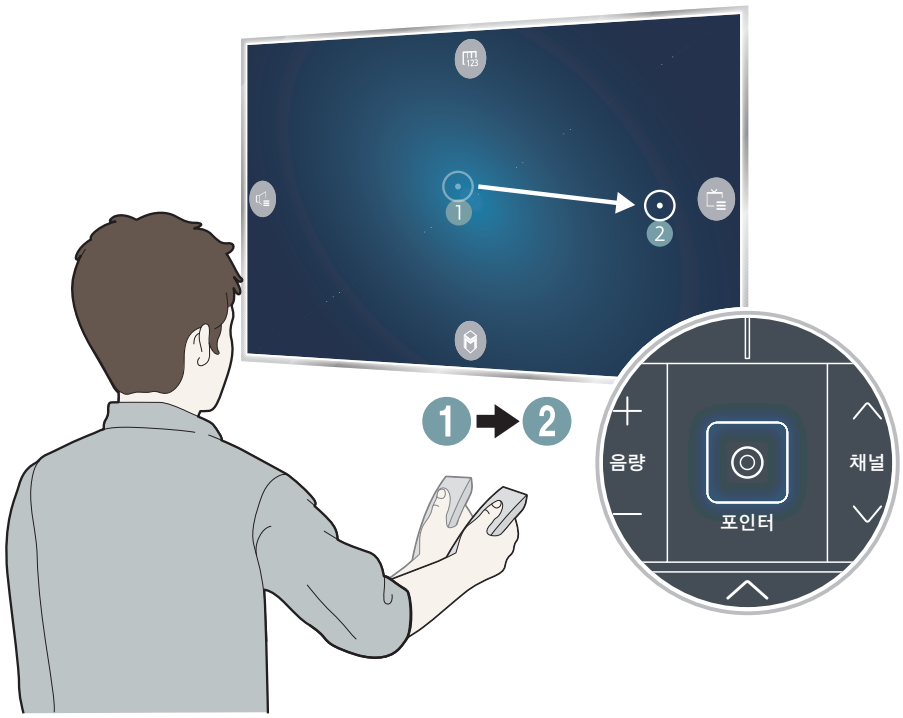
The buttons and functions of the Samsung Smart Control may differ by model.

# Using the Samsung Smart Control

Samsung Smart Control is only provided with the 6900, 7000 and 7500 series model or higher.

## Operating the TV with the POINTER button

Place a finger on the 포인터 button and move the Samsung Smart Control. The pointer on the screen moves in the direction you moved the Samsung Smart Control. Move the pointer to select an item on the screen.




## Operating the TV with the directional buttons and the Enter button

Press the directional buttons (up, down, left, and right) to move the pointer, focus, or cursor in the direction you want or change a setting shown on the focused item. Press the Enter button to select an item or run a focused item. Press and hold the Enter button to view the Guide while watching the TV.

To adjust the pointer speed, select (메뉴/123) > 메뉴 > System > Smart Control Settings > Motion Sensitivity. Try Now

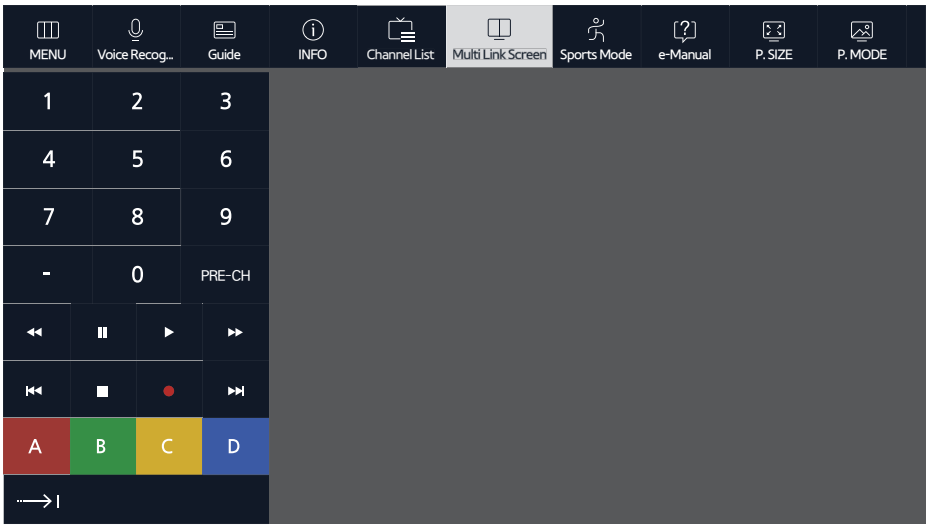
To use the Samsung Smart Control's motion sensor, set Voice Guide to Off.

To view a tutorial that shows how to use the 포인터 button, select Support > Smart Control Tutorial. Try Now

# Displaying and using the On-Screen Remote

You can display and use the On-Screen Remote on the TV's screen by pressing **메뉴/123** button on the Samsung Smart Control.

On the standard remote control, press the **간편메뉴** button, and then select some shortcut icons on the top of the screen to use the related function.




| Button | Description |
|---|---|
| **Menu** | Displays the menu on the screen. |
| **Voice Recognition** | Launches the Voice Recognition function.<br>For more information, refer to 'Read Before Using Voice, Motion, or Face Recognition.' |
| **Guide** | Displays the Guide screen. |
| **INFO** | Displays information about the current program or content. |
| **Channel List** | Lanuches the **Channel List**. |
| **Multi-Link Screen** | Splits the TV screen and use multiple functions - such as watching TV, surfing the web, and playing a video - at the same time.<br>For more information, refer to 'Viewing Multiple Screens or Features with Multi-Link Screen.' |
| **Sports Mode** | Turns the **Sports Mode** on or off.<br>For more information, refer to 'Making Sports Programs More Realistic with Sports Mode.' |
| **Extra** | Displays related information about the current program. |

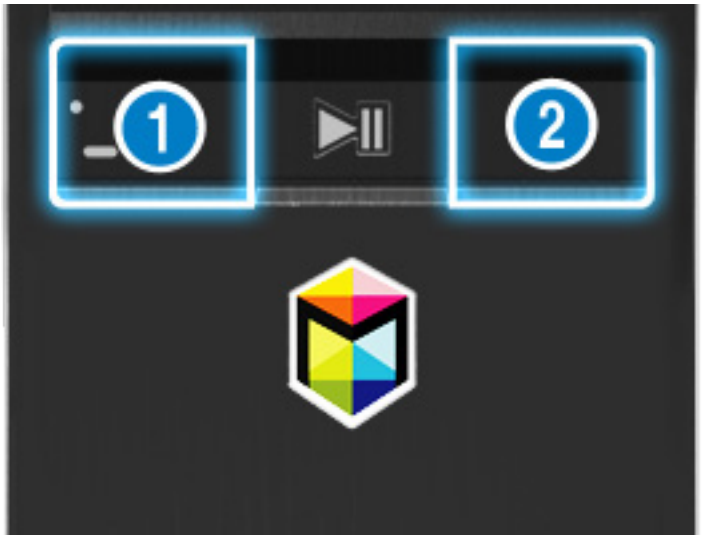
| Button | Description |
| --- | --- |
| e-Manual | Opens the e-Manual. |
| P.SIZE | Changes the picture size. |
| P.MODE | Changes the picture mode. |
| Speaker List | Allows you to select the speakers that will play the TV's audio. |
| Caption | Turns captions on or off. |
| 3D | Turns the 3D function on or off.<br>This function is only supported for the 7000 and 7500 series model or higher. |
| Sleep Timer | Shuts off the TV automatically after a preset period of time. |
| Tools | Displays the Tools' menu on the screen. |
| Source | Displays the Source screen. |
| Power | Turns off the TV. |
| Move Number Pad to the Right / Move Number Pad to the Left | Moves the number pad to the left or right. |

The On-Screen Remote buttons may vary, depending on the TV model and the TV functions you are using.

To change the order of the menu options on the first row, select a menu option to move, press and hold the Enter button, and then select the directional buttons displayed to specify a new position.

## Pairing the TV to the Samsung Smart Control

When you turn on the TV for the first time, the Samsung Smart Control pairs to the TV automatically. To re-pair it to the TV, press the ① and ② buttons on the Samsung Smart Control simultaneously for 3 seconds or more.



# Controlling External Devices with the TV Remote - Using the Universal Remote

(메뉴/123) > 메뉴 > System > Universal Remote Setup

You can control external devices connected to the TV using the TV's remote control.

- This function is only available on certain models.
- You can also use the Anynet+(HDMI-CEC) function to operate external Samsung devices with your TV's remote control without any additional setup. For more information, refer to 'Using Anynet+ (HDMI-CEC).'
- Certain external devices connected to the TV may not support the universal remote feature.

## Setting up the universal remote control

1. Turn on the external device you want to control with the universal remote function after connecting a HDMI cable to the TV's HDMI port.
2. Press the 외부입력 button on your remote to bring up the Source screen, follow the directions on the screen to complete the set up and register the device.

- If the external device does not respond after being registered, register it again using its model number.

# Controlling the TV with a Keyboard

(메뉴/123) > 메뉴 > System > Device Manager > Keyboard Settings Try Now

Certain models are not compatible with USB HID class keyboards.

## Connecting a keyboard

### Connecting a USB keyboard

Plug the keyboard cable into the TV's USB port.

### Connecting a Bluetooth keyboard

This function is only available on certain models.

1. Place the Bluetooth keyboard into standby status.
2. Select (메뉴/123) > 메뉴 > System > Device Manager > Keyboard Settings > Add Bluetooth Keyboard. The TV automatically scans for available keyboards.

   If your keyboard was not detected, position the keyboard close to the TV, and then select **Refresh**. The TV scans for available keyboards again.
3. Select the Bluetooth keyboard from the scan list, and then select **Pair and connect**. A number appears on the screen.
4. Enter the number using the Bluetooth keyboard. This pairs the Bluetooth keyboard to the TV.

# Using the keyboard

You can use the following remote features with the USB or Bluetooth keyboard connected to the TV.

- Arrow Keys (moving the focus), Windows Key (**메뉴** button), Menu List Key (**간편메뉴** button), Enter Key (Select/run item), ESC (**복귀** button), Number keys (Number buttons)
- F1(A), F2(B), F3(C), F4(D), F5( ), F6(**외부입력** button), F7(**채널목록** button), F8( button), F9 / F10(**음량** button), F11 / F12(**채널** button)
- Page Up / Page Down: On the 인터넷 app screen, scroll web pages up/down.
- Press and hold the Enter key: On the Smart Hub screen, navigate to an item and press and hold the Enter key to display the context-sensitive menu.

  The context-sensitive menu may vary depending on the item you selected.

## Changing keyboard settings

(**메뉴/123**) > **메뉴** > **System** > **Device Manager** > **Keyboard Settings** > **Keyboard Options** Try Now

- **Keyboard Language**

  Displays the languages you can use on your keyboard and lets you select a language.

- **Keyboard Type**

  Displays a list of keyboard types and lets you select a type that matches the Keyboard language you selected.

  The list of keyboard types differs depending on the language you selected under **Keyboard Language**.

- **Switch Input Language**

  Displays a list of keys you can use to toggle between languages and lets you select a key.

# Controlling the TV with a Mouse

(메뉴/123) > 메뉴 > System > Device Manager > Mouse Settings Try Now

Certain models are not compatible with USB HID class mice.

## Connecting a mouse

### Connecting a USB mouse

Plug the mouse cable into the TV's USB port.

### Connecting a Bluetooth mouse

This function is only available on certain models.

1. Place the Bluetooth mouse in standby status.
2. (메뉴/123) > 메뉴 > System > Device Manager > Mouse Settings > Add Bluetooth Mouse.
3. Select the Bluetooth mouse from the scanned list, and then select Pair and connect. This pairs the Bluetooth mouse to the TV.

## Using a mouse

You can use a pointer to control the TV in the same way you use a pointer on a computer.

- **Selecting and running an item**

  Left-click the mouse.

- **Scrolling the TV menu or screen**

  Scroll the mouse wheel up or down.

- **Exiting the TV menu or feature**

  Place the pointer in any blank point on the screen, and then left-click the mouse.

### Changing mouse buttons and pointer speed

(메뉴/123) > 메뉴 > System > Device Manager > Mouse Settings > Mouse Options Try Now

- Primary Button

  Select which button (left or right) to use when selecting and running items.

- Pointer Speed

  Adjust the movement speed of the pointer.

# Connecting a Bluetooth Gamepad

(메뉴/123) > 메뉴 > System > Device Manager > Bluetooth Gamepad Settings

You can play the games downloaded and installed on the Games service using a Bluetooth gamepad. Select Bluetooth Gamepad Settings, and then place your Bluetooth gamepad close to your TV. The TV scans for available Bluetooth gamepads automatically. (DualShock®4, a gamepad optimized for PlayStation, is recommended.) After scanning, you can use the Bluetooth gamepad to play games.

- This function is only available on certain models.
- If the TV fails to find your Bluetooth gamepad, place it closer to the TV, and then select Refresh.
- For more information on pairing, refer to the Bluetooth gamepad's operating manual.

# Entering Text using the On-Screen QWERTY Keypad

## Using additional functions

Select ⚙ on the QWERTY keyboard screen. The following options are available:

- Recommended text

  Enables or disables the recommended text feature. The keyboard displays recommended words so that you can enter the text more easily.

- Reset recommended text data

  Deletes both the recommended words and the memorized words to clear the list.

- Predict Next Character(when using direction buttons)

  Enables or disables the Text Prediction feature.

# Viewing Multiple Screens or Features with Multi-Link Screen

(메뉴/123) > 메뉴 > Picture > Open Multi-Link Screen

You can search the Web, use apps, and much more simultaneously while watching TV.

This function is only available on certain models.

## Displaying Multiple Screens

### Learning the basic functions

- **Changing the channel and volume of a Multi-Link Screen**

  To change the channels of a Multi-Link Screen, press the 채널 buttons while you are watching the TV. To adjust the volume of a Multi-Link Screen, move to the screen to adjust the volume, and then press the 음량 buttons.

- **Changing the input signal**

  Press the 외부입력 button while using Multi-Link Screen display the source list. Select a signal source of the external devices from the list. You can view the screen of the external device while you are watching the TV.

- **Changing the web browser and apps**

  While you are using a Multi-Link Screen, the recently used web browser or apps are displayed at the right side of the screen. You can change these apps to others  by using the Smart Hub.

- **Changing the size of a Multi-Link Screen**

  To change the size of a Multi-Link Screen, move the focus to the screen you want to resize, and then use the  the up or down directional button. Alternatively, drag the line in the middle of the screen to the left or right. To display the focused Multi-Link Screen in full screen mode, select .

- **Selecting a speaker device for a Multi-Link Screen**

  Press the 음량 button, and then press the left directional button. The speaker device lists are displayed on the screen. Select Multi-Link Screen Speakers to turn on or off the sound from the selected screen. If you connect a Bluetooth headphone, you can select Bluetooth Headphones.

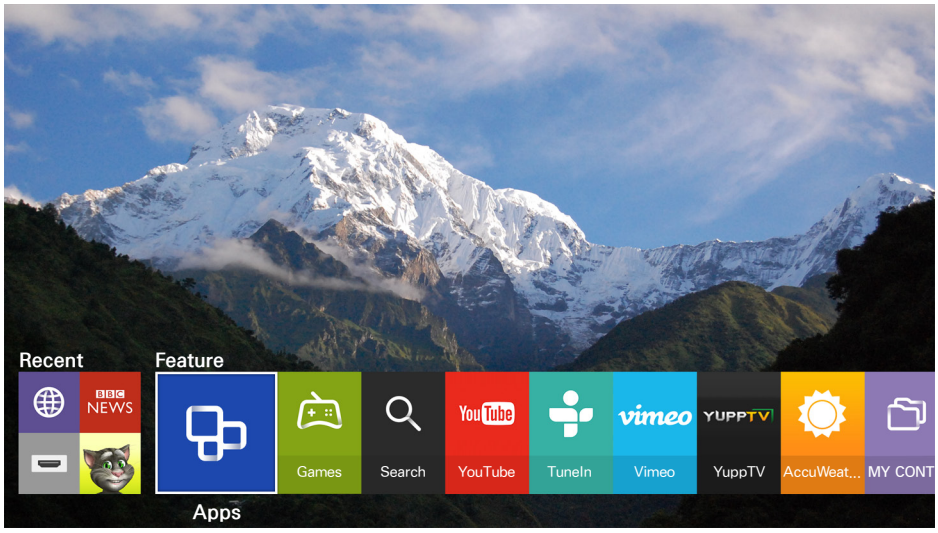
  On the Samsung Smart Control, press the 메뉴/123 button, and then selecting Speaker List to select the speaker of each screen.

## Read before using Multi-Link Screen

- This function is only available on certain models.
- Before using Multi-Link Screen, make sure the TV is connected to the Internet.
- Before using Smart Hub with Multi-Link Screen, make sure to finish configuring Smart Hub.
- UHD content and channels cannot be viewed simultaneously.
- Certain TV features and apps may not be supported by Multi-Link Screen. If this is the case, exit from Multi-Link Screen and then use the feature.
- You can hear the selected audio while you are using the **Multi-Link Screen** and you can hear the other screen's audio through the Bluetooth headphones.
- The Timeshift function is not available when Multi-Link Screen is running. For more information, refer to 'Using Timeshift.'

# Smart Hub

or (메뉴/123) > 메뉴 > Smart Hub > Open Smart Hub Try Now




The TV's screen may differ from the image above, depending on the model.

You can surf the web, download apps with Smart Hub. In addition, you can enjoy photo, video, and music files stored on external storage devices.

Place a finger on the 포인터 button to display the pointer on the screen. Select at the bottom of the screen to launch Smart Hub.

When you launch Smart Hub, you can list or delete recently used apps or features. You can also set an item as a favorite. To delete all running apps, select Clear All. The favorites list items will not be deleted.

To run Smart Hub while you are using a service provided by Smart Hub, go to the same path as described above.

## Removing or pinning an item in the Recent group

To remove or pin an item in the Recent group, select that appears above the item. The following icons are available.

On the standard remote control, press the button.

- : Deletes the item. Although you remove an item from the Recent group, it is not removed from your TV.
- : Pin the item to the first position. To unpin the item, select again.
- : Runs the item in a multiple screen with the Multi-Link Screen function. ((메뉴/123) > 메뉴 > Picture > Open Multi-Link Screen)

  This icon may not be displayed depending on the item.

## Launching Smart Hub automatically

(메뉴/123) > 메뉴 > Smart Hub > Auto-Start Settings > Smart Hub

You can start Smart Hub automatically when you turn on the TV.

## Testing Smart Hub connections

(메뉴/123) > 메뉴 > Support > Self Diagnosis > Smart Hub Connection Test

If Smart Hub is not working, select Smart Hub Connection Test. The Connection Test diagnoses the problem by checking the Internet connection, your ISP, the Samsung server, and the Apps service.

## Using the Smart Hub tutorial

(메뉴/123) > 메뉴 > Support > Smart Hub Tutorial

You can learn the basics of using Smart Hub and the Smart Hub service in detail.

## Resetting Smart Hub

(메뉴/123) > 메뉴 > Smart Hub > Reset Smart Hub Try Now

You can remove the Samsung accounts saved in the TV and everything linked to them, including apps.

- Some of the Smart Hub services are for pay services. To use a for pay service, you must have an account with the service provider or a Samsung account. For more information, refer to 'Using Smart Hub with a Samsung Account.'
- To use this feature, the TV must be connected to the Internet.
- Some Smart Hub features may not be available depending on the service provider, language, or region.
- Smart Hub service outages can be caused by disruptions in your Internet service.
- To use Smart Hub, you must agree to the end user agreement and privacy policy. Otherwise, you will not be able to access the features and services associated with them. You can view the entire text of the Terms & Policy by navigating to Smart Hub > Terms & Policy. If you want to stop using Smart Hub, you can cancel the agreement. Try Now
- To view Smart Hub Tutorial, select the ? button on the Recent screen.

# Using Smart Hub with a Samsung Account

## Creating a Samsung account

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account

Some of the Smart Hub services are for pay services. To use a for pay service, you must have an account with the service provider or a Samsung account.

You can create a Samsung account using your email address as your ID.

- To create a Samsung account, you must be over 14 years old.
- To create a Samsung account, you must agree to the Samsung account end user agreement and privacy policy. To view the entire contents of the agreement, select (메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Terms and Conditions, Privacy Policy.
- You can also create a Samsung account at http://content.samsung.com. Once you have an account, you can use the same ID on both the TV and the Samsung website.

### Signing up for a Samsung account

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Create Account > Create Samsung Account

You can create the Samsung account by following the on-screen instructions. Once a Samsung account is created, you are automatically signed in to your Samsung account.

- If you want to review the Terms and Conditions, select View Details.
- If you want your account to be protected, select Profile image selection and password entry (High security) in the field below the password field.
- If you want the TV to log you in to your account automatically when you turn the TV on, click Sign me in automatically.

### Creating a Samsung account using a Facebook account

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Create Account > Create Samsung Account with Facebook

Enter your Facebook ID and password, and then follow the on-screen instructions to complete account setup. Once a Samsung account is created, you are automatically signed in to your Samsung account.

- Your Samsung account and Facebook account are automatically linked when you create a Samsung account with your Facebook account.

# Signing in to a Samsung account

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Log In

You can automatically sign in to your Samsung account and use the Smart Hub feature.

## Registering an existing Samsung account to the TV

If you already have a Samsung account, you can register that account to the TV. Select + > Log In on the Samsung account screen and follow the on-screen instructions.

## Signing in to a registered Samsung account saved on the TV

If you register a Samsung account, it is saved on the TV. To sign in to a registered Samsung account, just select it on the TV.

To change the sign in method, refer to 'Changing and adding information to a Samsung account.'

# Linking your Samsung account to external service accounts

You can automatically log in to external service accounts when you log into your Samsung account by linking your Samsung account to the external service accounts.

To use Link Service Accounts, you must first log into your Samsung account.

## Linking or disconnecting a service account

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Link Service Accounts

- **Linking a service account**

  Select an account from the list and log in to the account by following the on-screen instructions. The service account is linked to the Samsung account.

- **Disconnecting a linked account**

  Select an account from the list and unlink the account by following the on-screen instructions.

## Changing and adding information to a Samsung account

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Edit Profile

You can manage your Samsung account. Follow the on-screen instructions to enter your password and select Done. And Edit Profile screen will appear automatically.

To change the account information, you must be logged in to your Samsung account.

You can perform the following functions on the screen.

- **Change Your Profile Image**
- **Register Your Face to your Samsung Account**

  Registered faces are used with the Login Options.
- **Select a Samsung Account sign-in method**
- **Turn auto login on or off**
- **Enter Basic User Information**
- **Subscribe to the Samsung e-Newsletter**

## Deleting Samsung accounts from the TV

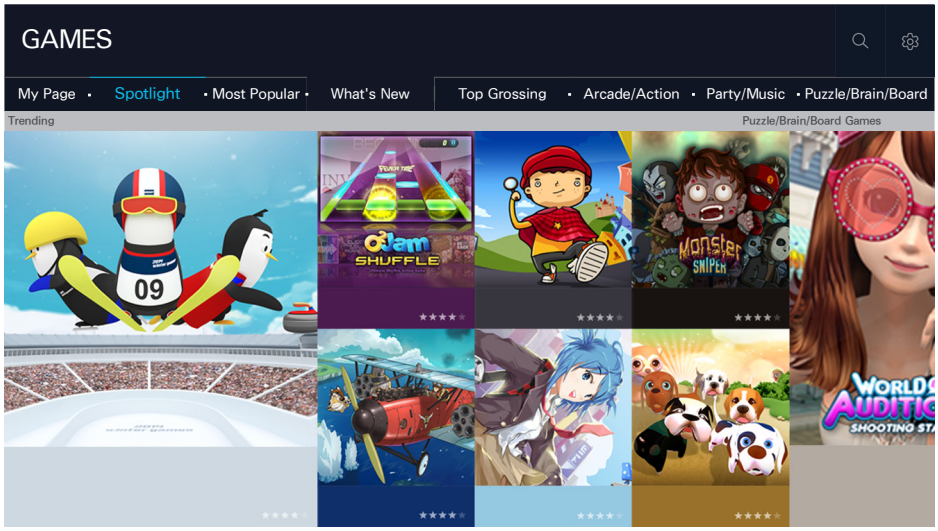
(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Remove Accounts from TV

You can remove all Samsung account and password information from your TV. The account information for any external accounts linked to the account is also removed from the TV.

To remove the account information, you must be logged in to your Samsung account.

# Using the Games service

> Featured > Games




You can download and play the optimized game apps for your TV. Select a category from the top of the screen. You can install and run the apps arranged by genres, such as Spotlight, Most Popular, What's New. You can also manage the downloaded game apps in My Page.

The TV must be connected to the Internet for you to use the GAMES Panel.

## Managing Games with the pop-up Options menu

Move the focus to a game, and then press and hold the Enter button. You can use the following functions.

- **Download / Remove**
- **View Details**
- **Update**

The pop-up menu may differ with the app you selected.

# Installing and running a game

## Installing games

Select a game to install and press and hold the Enter button. Select **Download** in the context-sensitive window or install the game in the detailed game information screen.

- To get the information about the game controllers that are compatible with the downloaded game, select button on **Games** > **Options** > **Gamme Controller Guide**. Alternatively, select on the game's detailed information screen.
- When the TV's internal memory is insufficient, you can install a game on a USB device.
- You can play a game installed on a USB device only when the USB device is connected to the TV. If the USB device is disconnected during game playing, the game is terminated.
- You cannot play the game installed on the USB device on a PC or another TV.

## Launching a Game

Select a game on **Games** > **Spotlight** or **Games** > **My page**. Alternatively, select **Play** on the game's detailed information screen to run a game.

- To run a game, you need to sign in to your Samsung account.

# Managing downloaded or purchased games

Select **My Page** on the **Games** service.

## Updating a game

Select **My Page** > **Options** > **Update My Games**, You can update games installed on the TV.

**Update** appears only when there is a game that needs to be updated.

## Enabling automatic game updates

(**메뉴/123**) > **메뉴** > **Smart Hub** > **App & Game Auto Update**

To update games automatically, set **App & Game Auto Update** to **On**. Games will be updated automatically when an update becomes available.

## Removing a game

1. Select **Options** on the**My Page** screen, and then select **Delete My Games**.
2. Select a game to remove, and then press the **포인터** button or press the Enter button. Repeat the process to select additional games to remove. To select all games, select **Select All**.
3. When your are done selecting games, select **Delete**.

You can remove a game by pressing and holding the Enter button with the game selected.

## Editing a nickname

1. Select **Options** on the **Game** service screen, and then select **Edit Nickname**.
2. Enter your nickname with the on-screen keyboard, and then select **Done**.

Your nickname is displayed on the **My Page** screen.

## Rating a game

You can rate a game on the detailed information screen.

This feature is only available when the game is installed on your TV.

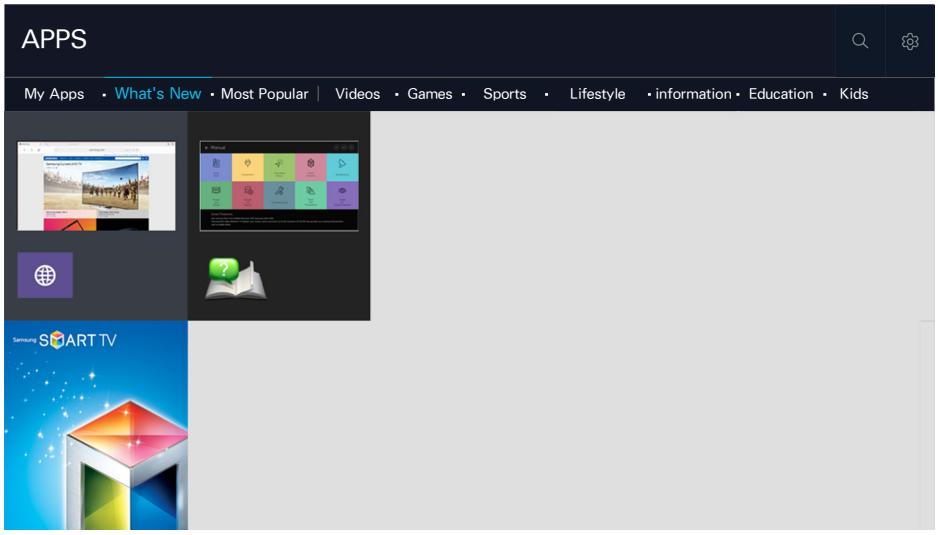
## Registering a coupon

Enter the coupon number on the **My Page** screen to register it.

Can't use expiration of the coupon.

# Using the Apps service

> Featured > Apps




You can enjoy a wide range of content including free news, sports, weather and games by installing the corresponding apps on your TV. You can download the apps from Smart Hub. Select a category from the top of the screen. You install and run the apps arranged by genres, such as **What's New**, **Most Popular**.

When Smart Hub is launched for the first time, the default apps are automatically installed. The default apps may differ with the region.

Managing Downloaded Apps with the pop-up Options menu

## Managing Games with the pop-up Options menu

Move the focus to an app in the second row or below, and then press and hold the Enter button. The option menu appears displaying the following functions.

- **Delete**
- **Detail**
- **Reinstall**

The pop-up menu may differ with the app you selected.

# Installing an app

## Quickly installing apps

1. Select a category on the **Apps** screen.
2. Move the focus to an app, and then press and hold the Enter button. The context-sensitive menu appears.
3. Select **Download**.
4. The selected app is installed on the TV.

- You can view installed apps on the **My Apps** screen.
- You can also, install the app from detailed information screen.
- When the TV's internal memory is insufficient, you can install an app on a USB device.
- You can play an app installed on a USB device only when the USB device is connected to the TV. If the USB device is disconnected during app playing, the app is terminated.
- You cannot play an app installed on the USB device on a PC or another TV.

## Launching an app

You can launch an app by selecting an app on the **Apps** screen.

The icons below appear in the selected apps and indicate the following:

- : The app is installed on a USB device.
- : The app has a password.
- : The app is installed.

# Enabling automatic game updates

(메뉴/123) > 메뉴 > **Smart Hub** > **App & Game Auto Update**

To update apps automatically, set **App & Game Auto Update** to **On**. Apps will be updated automatically when an update becomes available.

## Removing an app from the TV

Select an app to remove on the **Apps** screen and press and hold the Enter button to confirm it. If you want to remove multiple apps, select all the apps to delete and select **Options** from the top of the screen, and then select **My Apps** Delete.

Ensure that the related app data is also removed when you remove an app.

## Moving apps

Select **Options** > **Move My Apps** on the Apps screen. Select an app to move. The 4 directional arrows appear around the app. Move the app to desired location with the on-screen directional arrows, and then press the Enter button.

## Locking and unlocking apps

Select the **Options** > **Lock/Unlock My Apps** on the **Apps** screen. The password input screen appears. Enter your password, and then select apps to lock or unlock. When done selecting, select **Save**. All selected apps are locked or unlocked.

## Updating apps

Select **Options** > **Update Apps** from the top of the screen on the **Apps** screen. The TV searches the apps to be updated and displays the list. After scanning, you can update some apps or all apps.

## Rearranging apps

Select **Options** on the **Apps** screen, and then select **Sort by** to sort the apps by date, time or others.

## Rating purchased content

You can set the star score by using the the left or right directional buttons on the detailed information screen.

## Using other app features and functions

(**메뉴/123**) > **메뉴** > **Smart Hub** > **Auto-Start Settings** > **Channel-Bound Apps & Ticker**

You can configure additional app features and functions.

### Using channel bound apps

You can receive the information on TV programs and other relevant services while viewing TV by using an app installed on the TV and linked to a specific channel.

This function is only available when an app supporting **Channel-Bound Apps & Ticker** is installed on the TV.

# Using the e-Manual

## Launching the e-Manual

(메뉴/123) > 메뉴 > Support > e-Manual

You can use the embedded e-manual containing information about your TV's key features. Press the 메뉴/123 button and then select e-Manual.

1. Select a category from the screen. The content of the selected category appear on the screen.
2. Select an item from the list. The corresponding e-Manual topic appears.

Press the e-설명서 button on the standard remote control.

Alternatively, you can download a copy of the e-manual from Samsung's website.

Words in blue (e.g., Picture Mode) indicate a menu item.

The arrows in the menu navigator indicate the menu path. For example, (메뉴/123) > 메뉴 > Picture > Picture Mode means you press the 메뉴/123 button on the Samsung Smart Control, and then select Menu, Picture, Picture Mode in order on the screen. (e.g (메뉴/123) > 메뉴 > Picture > Picture Mode)

## Using the buttons of e-Manual

(Search): Brings up the search screen. Enter a search term, and then select Done. Select an item from the search result to load the corresponding page.

(Index): Brings up the index screen. Select a topic from the list to navigate to the relevant page.

(Recently Viewed Topics): Displays a list of previously read pages. Select a page. The e-Manual jumps to the selected page.

### Accessing the associated menu screen from an e-Manual topic page

(Try Now): Allows you to access the corresponding menu item and try out the feature right away.

(Link): Allows you to access the corresponding reference page.

The e-Manual cannot be accessed from some menu screens.

### Updating the e-Manual to the latest version

You can update the e-Manual in the same way you update apps.

# Using the web browser

You can surf the Internet on the TV in the same manner as you would using a PC – even while watching a TV program using PIP. Select **Help** to view the information of the Internet web browser.

- For a more convenient web browsing experience, use a keyboard and mouse.
- You can scroll the Web browser page with the 4 directional buttons.
- The Web browser page may differ from that on a PC.

## Browsing preferences

Configure the browsing settings for your convenience or to meet you needs. Select ☰ > **Settings**.

- **General**

  Hides taps or menu bars automatically after a period of inactivity, or resets all user settings.

  - The bookmarks or browsing histories that you made will not be reset.

- **Home Page**

  Sets the homepage when you launch the web browser.

- **Search Engine**

  Searches for information that you entered and display the result web pages.

- **Private & Security**

  Prevents you from accessing inappropriate web pages or sets not to save the browsing history.

- **Blocked pages**

  Blocks or unblocks pages. You can manage a list of pages to block.

- **Approved pages**

  Limits to use only the page that you have approved. To use this option, set a password. You can add or remove the approved pages.

- **Encoding**

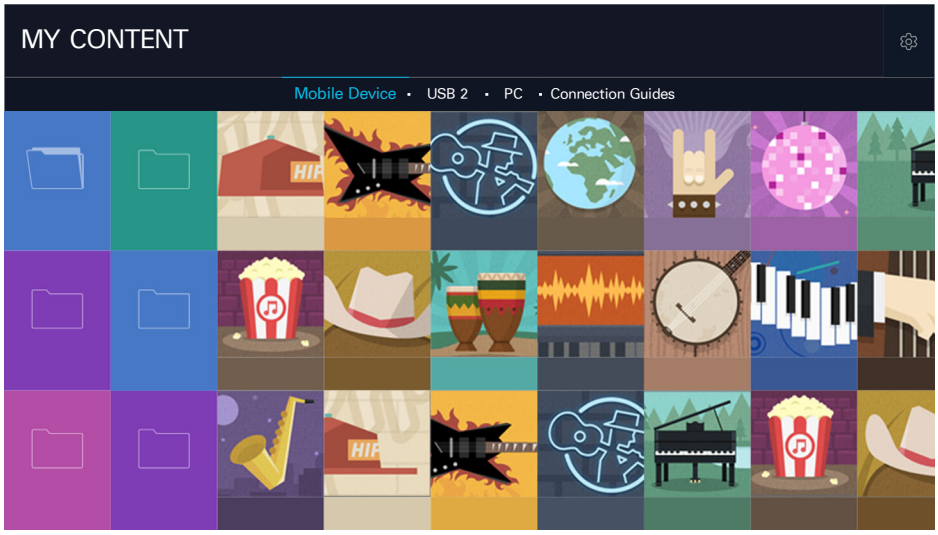
  Set the encoding to **Auto**, or selects an encoding method from the list.

- **About**

  Views the current version of Web Browser.

# Using the My Content service

> Featured > My Content Try Now




You can play the media content saved on the storage devices, such as a USB device, mobile device, and camera, in the TV. When you connect a storage device to the TV, the TV displays a tab with the name of the connected device. Select the tab to confirm the content saved on the storage device.

- You cannot play media content if the content or the storage device is not supported by the TV. For more information, refer to 'Read Before Playing Photo, Video, or Music Files.'
- Backup important files before connecting a USB device. Samsung is not responsible for damaged or lost files.

## Read before playing media content

- To connect the TV to a computer, refer to 'Connecting a Computer.'
- To connect the TV to a USB or external storage device, connect the device to the TV's USB port.
- To connect the TV to a mobile device, refer to 'Connecting a Mobile Device.'

# Playing multimedia content saved on a computer or mobile device

Before connecting to a computer or mobile device, configure the network settings.

## Playing multimedia content in a computer or mobile device

> Featured > My Content

1. Connect a computer or mobile device. The TV displays the devices' names and lists the media files in the devices.
2. Select the media file to play from the list. The selected media plays.

Alternatively, move to the media content you want to play, and then press the ▶ button to play the content.

To connect the TV to a mobile device, refer to 'Connecting a Computer.'

This function is dependent on the specific model.

To connect a mobile device through the Smart View 2.0, refer to 'Connecting a Mobile Device.'

The content shared by a computer or a mobile device may not be played depending on the encoding type and file format of the content.

The content may not be played smoothly depending on the network status. If this occurs, transfer the content to a USB storage device, and then play the content from the device.

# Playing media content saved on a USB device

1. Select a USB device name on the My CONTENT screen. The TV displays a thumbnail list of the media content saved on the USB device.
2. Select the media content to play from the list. The media content plays.
3. Select the ■ button to stop playing or press the 복귀 button.

While video with UHD-level resolution is being played, Motion Control is not available.

Alternatively, if you select a USB device on the Source screen, a pop-up window appears on the screen displaying the folders and files of the USB device.

## Safely Removing a USB Device

1. Press the 외부입력 button. The Source screen appears.
2. Move the focus to the USB device you want to remove, and then press the down directional button.
3. Select Remove USB in the list.

# Buttons and functions available while viewing photos

You can press the Enter button while viewing photos to display available options. You can also view the thumbnails of photos saved on the TV while viewing photos. The options disappear when you press the 복귀 button.

- Pause / Play

  Start or stop the slideshow. Using slideshow, you can play all the photos in a folder one by one.

- Previous / Next

  View the previous or the next photo.

- Options

| Function | Description |
|---|---|
| Slideshow Speed | Sets the slideshow speed. |
| Slideshow Effects | Applies transition effects for the slide show. |
| Zoom & Rotate | Zooms in by up to a factor of 4. Rotates the photo. |
| Background Music | Plays background music while displaying photos.<br>The music files must be saved in the same USB device as the photo files.<br>When background music plays, the music icon appears on the screen. Using the music icon, you can pause the current music file or play another music file. |
| Sound Mode | Displays a list of Sound Modes and lets you change the mode.<br>This function is available only when background music is playing. |
| Speaker List | Gives you a choice of which speakers to play the background music through.<br>• TV Speaker: Plays the background music through the TV speakers.<br>• Audio Out: Plays the background music through the external speakers.<br>• Speaker Settings: Plays the background music through a speaker that you want.<br>• Sound Mode: Changes the sound mode during playback when you play the music through the TV speakers.<br>• Equalizer: Allows you to adjust the loudness of specific frequency ranges to control the richness of the sound. To restore the defaults, select Reset. |
| Picture Mode | Changes the picture mode. |
| About | Changes the picture mode setting. |

# Buttons and functions available while viewing videos

You can press the Enter button while viewing videos to display available options. Preview images of the frames at the same time intervals are displayed so that you can move to a specific frame easily. The options disappear when you press the 복귀 button.

- Pouse / Play

  When the recording is paused, you can use the following functions. However, no audio is heard while the recording is paused.

  – **Step**: Allows you to step through the paused video one frame at a time by pressing the ❚❚ button.

  – **Slow Motion**: Allows you to play the video in slow playback speed (1/8, 1/4, 1/2) by pressing the ▶▶ button.

- Rewind / Fast Forward

  Rewinds or fast forwards the video. To increase the rewind or fast forward speed up, select the button repeatedly. To restore normal playback speed, press the ▶ button.

- Previous / Next

  Plays the previous or next video. Press the ⏮ button twice to play the previous video. Press the ⏮ button once to start the current video from the beginning.

  Press the ⏭ button to play the next video.

- **Repeat**

  Plays the current video file repeatedly or all video files in the same folder repeatedly.

- **Options**

| Function | Description |
|---|---|
| Picture Size | Changes the size of the screen. The supported picture sizes differ with the video. |
| Caption | Controls video subtitles.<br>• Subtitles: Turns the subtitles on or off.<br>• Language: Sets the caption language.<br>• Sync: Adjusts the synchronization when the video and the subtitles are not synchronized.<br>• Reset Sync: Resets the subtitle synchronization adjustment to 0.<br>• Size: Changes the font size of the subtitles.<br>• Encoding: Displays a list of encoding languages. Allows you to change the encoding language when subtitles are displayed incorrectly. |
| Rotate | Rotates the video. |
| Picture Mode | Changes the picture mode. |
| Sound Mode | Displays a list of Sound Modes and lets you change the mode. |
| Speaker List | • TV Speaker: Plays the video sound through the TV speakers.<br>• Audio Out: Plays the video sound through the external speakers.<br>• Speaker Settings: Plays the TV sound through a speaker that you want.<br>• Sound Mode: Changes the video sound mode during playback when you play the video sound through the TV speakers.<br>• Equalizer: Allows you to adjust the loudness of specific frequency ranges to control the richness of the sound. To restore the defaults, select Reset. |
| Audio Language | Displays a list of languages and allows you to select the audio language that will be used when you play videos. This function is only available if the video supports multi-track sound. |
| About | Displays detailed information about the video. |

# Buttons and functions available while playing music

You can use the following functions when you select a music file.

- **Pouse** / **Play**
- **Previous** / **Next**

  Plays the previous or next music file. Press the ⏮ button twice to play the previous music file. Press the ⏮ button once to start the current music file from the beginning.

  Press the ⏭ button to play the next music file.
- **Repeat**

  Plays the current music file repeatedly or all music files in the same folder repeatedly.
- **Shuffle**

  Plays the music files in random order.
- **Speaker List**
  - **TV Speaker**: Plays the music through the TV speakers.
  - **Audio Out**: Plays the music through the external speakers.
  - **Speaker Settings**: Plays the music through a speaker that you want.
  - **Sound Mode**: Changes the sound mode during playback when you play the music through the TV speakers. ((**메뉴/123**) > **메뉴** > **Sound** > **Sound Mode**)
  - **Equalizer**: Allows you to adjust the loudness of specific frequency ranges to control the richness of the sound. To restore the defaults, select **Reset**.
- **Screen Off**

  Plays the music files only with the screen off.

## Listening to music in HD quality

You can enjoy HD music in HD native quality. Move to **My CONTENT** panel and select a music file to play in HD quality.

- Set **HD Audio** ((**메뉴/123**) > **메뉴** > **Sound** > **Additional Settings** > **HD Audio**) to **On** before playing HD Audio format.
- If a music file supports the HD audio format, the HD icon appears in the list.
- Select a music file, and then select ▶ to play it.
- To stop playing the HD music, set **HD Audio** mode to **Off** during playback. The next music file is played with standard audio signals.
- When you play an HD music file while the **Multi-Link Screen** is running, **Multi-Link Screen** is automatically terminated.
- Standard audio signals are sampled at 48 kHz while HD audio signals are sampled at 96 kHz.
- Some S/PDIF receivers may not be compatible. For incompatible receivers, deactivate **HD Audio** mode and use normal audio mode instead.
- Some external audio players connected via HDMI, Bluetooth, or Wi-Fi networks are not able to play the HD audio signals.

# Functions on the media content list screen

You can use the following functions on the media content list screen of a storage device.

- **Filter By**

  Filters the media content to display the type of media you want.

- **Sort By**

  Sorts the content list. The sorting methods change depending on the type of content you have selected.

  This function is not available when **Filter By** is set to **All**.

- **Delete**

  Deletes the recorded media content from the media content list

  This function is only available when the storage device has the recorded media content.

- **Play Selected**

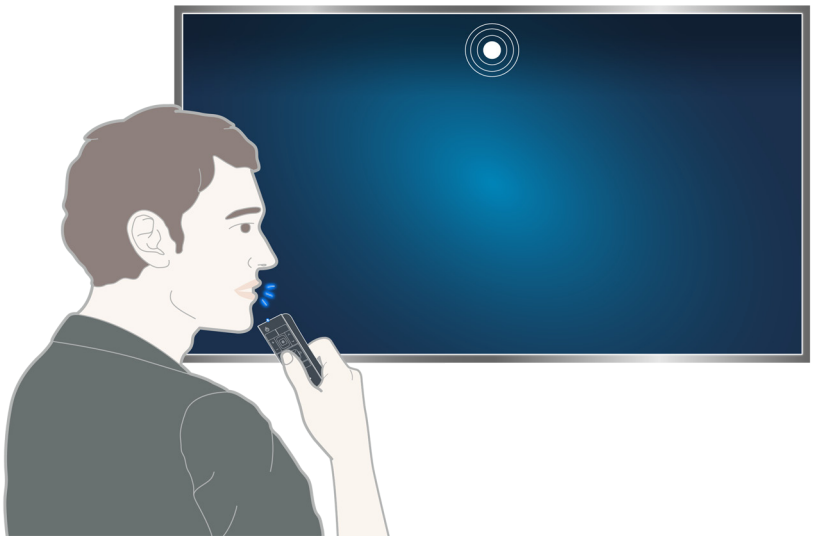
  Plays the selected media content from the media content list.

  This function is not available when **Filter By** is set to **All**.

# Controlling the TV with Your Voice

메뉴/123 > Voice Recognition

This function is only supported by the models with the Samsung Smart Control.



The TV's screen may differ from the image above, depending on the model.

When you run Voice Recognition, the Voice Recognition User Guide appears at the top of the screen. This Guide differs by the language for which Voice Recognition is supported.

You can use Voice Recognition in two modes:

- **The short distance recognition mode that uses the microphone built into the Samsung Smart control:**
  - Press the 메뉴/123 button, and then select Voice Recognition.
  - Or, press and hold the 메뉴/123 button.

# Read before using Multi-Link Screen

(메뉴/123) > 메뉴 > System > Voice Recognition Try Now

You can access and select certain menu options and functions using voice commands. For more effective voice recognition, speak slowly and clearly in the language specified in the (메뉴/123) > 메뉴 > System > Voice Recognition > Language option.

For more information about voice recognition, refer to 'Read Before Using Voice, Motion, or Face Recognition.'

# Learning voice recognition basics

- **View all Voice Commands:**

  Press the down directional button on Samsung Smart Control to display a complete list of voice commands by category. Alternatively, say "Help."

- **Deactivating Voice Recognition**

  Say "Close", or press the 복귀 button to terminate voice recognition.

The TV recognizes predefined voice commands only. These voice commands may differ from the manual depending on the version of the TV.

## Enabling or disabling TV voice

(메뉴/123) > 메뉴 > System > Voice Recognition > TV Voice

Enable or disable TV voice with your voice commands.

## Selecting TV voice gender

(메뉴/123) > 메뉴 > System > Voice Recognition > Voice Gender

You can select a gender for the TV voice when you use the Voice Recognition function.

## Changing the voice recognition language

(메뉴/123) > 메뉴 > System > Voice Recognition > Language Try Now

You can select a language to use with the Voice Recognition function.

Interactive voice recognition is not available in some languages. If the selected language is not available, select a different language.

## Using interactive voice recognition

You can search for content that is available in the TV program or execute various other functions without having to remember specific commands or keywords. Activate **Voice Interaction** and say a command. See the examples below:

- **When you want to find specific content**

  "***(Title)" / "Find ***(title)")

- **When you want to know specific information:**

  "What's the weather in ***(place name)?" / "What is the ***(company) stock price?" / "Show me the ***(team) score."

- **When you use the TV's function:**

  "Set Sleep Timer (function name) after 30 minutes."

## Using the voice recognition tutorial

(메뉴/123) > 메뉴 > **Support** > **Voice Recognition Tutorial** Try Now

The tutorial lets you familiarize yourself with the basics of using **Voice Recognition**. Run **Voice Recognition Tutorial** from the **Support** menu, or run **Voice Recognition** and say "**Tutorial**".

# Controlling the TV using Motions (Motion Control)

(메뉴/123) > 메뉴 > System > Motion Control Try Now

You must connect to the optional TV camera (sold separately) to use this function.

Motion Control is not available:

- When you are playing UHD-level video saved on a USB device
- When you are viewing a digital channel with UHD-level resolution
- When you are using the Samsung Smart Control or a mouse

This function is only supported for the 6800 series model or higher.

This function is not supported by some apps.

For more information, refer to 'Read Before Using Voice, Motion, or Face Recognition.'

⚠ **The optional TV camera must be connected to the dedicated TV CAMERA port at the back of the TV. The other USB ports do not support the camera or Motion Control.**

## Testing ambient illumination using the TV camera

(메뉴/123) > 메뉴 > System > Motion Control > Motion Control Environment Test Try Now

Run this test before using Motion Control to ensure proper functionality.

1. Stand 1.5 to 3.5m from the TV screen. Launch the Motion Control Environment Test, and then select Start. If the TV screen is reflecting light or there are objects moving in the background, the TV may not recognize the motion of your hand.
2. Face the TV camera, and follow the onscreen instructions.

### Checking ambient noise and illumination

(메뉴/123) > 메뉴 > Support > Self Diagnosis > Motion Control Environment Check

You can test the ambient noise and brightness levels around the TV camera and microphone to ensure that they are suitable for voice and motion control use.

# Controlling the TV using motions

(메뉴/123) > 메뉴 > System > Motion Control > Motion Control Try Now

Face the TV camera. Lower your hand to a comfortable position. Raise your hand with your index finger fully extended upwards, and then move your hand slowly to the left or right. When your hand is successfully recognized by the TV camera, motion control is activated, and a pointer and motion control icons appear on the screen.

To deactivate motion control, move your hand out of the range of the TV camera. To reactivate it, simply move your hand toward the TV camera within 3 seconds.

Motion Control may be terminated if your index finger is not fully extended or you move it to fast.

## Using the motion control tutorial

(메뉴/123) > 메뉴 > Support > Motion Control Tutorial Try Now

You can learn the basics of using motion control.

## Learning motion control basics

The following actions are available:

- **Moving the pointer**

Move your hand to move the pointer accordingly.

- **Selecting an item**

Fold down and raise your index finger to select items. You can select a TV menu or run a function. Keeping your index finger lowered is like holding down a remote control button.

- **Returning to the previous menu**

Make a circle with your hand in the counterclockwise direction to return to the previous screen menu.

- **Displaying the context-sensitive menu / Viewing broadcast information**

Fold your index finger down for 1 second and then raise it. This action displays the context-sensitive menu. / While viewing broadcasts, fold down your index finger for 1 second at any blank point on the screen, and then raise it. You can view the broadcast information saved automatically for all channels.

## Showing and hiding the animated motion guide Try Now

Select (메뉴/123) > 메뉴 > System > Motion Control > Animated Motion Guide.

You can display an animated guide when motion control is activated.

## Adjusting pointer speed Try Now

Select (메뉴/123) > 메뉴 > System > Motion Control > Pointer Speed.

# Select a pointer and adjust its speed.

## Changing the motion control screens

Direction Control Mode

Motion Pointing Mode

- **Direction Control Mode**

  If you run Motion Control for the first time by raising you hand while viewing a broadcast, the Direction Control Mode screen appears. The screen contains the Direction Control icon.

- **Motion Pointing Mode**

  Move at the center of the Direction Control icon with your index finger, and then fold down your index finger. The four icons allowing you to run the main functions of your TV appear. To switch to the Direction Control Mode screen, move your hand out of the screen and then raise your index finger at the screen.

| Icon | Description |
|---|---|
| | Displays the On-Screen Remote. |
| | Displays the channel list or information about the current program. |
| | Launches Smart Hub. |
| | Allows you to adjust the volume or select the speakers to use. |
| | Allows you to adjust the volume, change the current channel, or change the motion control layout in Motion Pointing mode. |

## Showing the Direction Control icon while not viewing a broadcast

To display the Direction Control icon while not viewing a broadcast, move the pointer to the center of the top side of the screen, and then fold down you index finger.

After the Direction Control icon appears, move the focus to the or , and then fold down your index finger to display the On-Screen Remote or launch Smart Hub.

The Direction Control icon disappears when there is no user action for 5 or more seconds.

Displaying the hidden direction control icons while surfing the Internet

# Using Face Recognition

You can register your face using the TV camera, and sign in to your Samsung accounts using the face recognition function. Only one face can be registered per account. Depending on the ambient illumination level and/or shadows over a face, the TV may have difficulty recognizing it.

- This function is only supported for the 6800 series model or higher.
- A TV camera (sold separately) needs to be connected in order to use Face Recognition.
- For more information, refer to 'Read Before Using Voice, Motion, or Face Recognition.'

⚠ **The optional TV camera must be connected to the dedicated TV CAMERA port at the back of the TV. The other USB ports do not support the camera or Motion Control.**

## Registering your face to your samsung account

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Edit Profile

Select after entering your account password. To create a Samsung Account if you do not already have one, and then select **Take Picture**, align your face within the red circle. When the circle turns green, the TV has recognized your face.

- To use this function, you must sign in to your Samsung account.
- Your entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognizing your face accurately.
- Keep your expression as neutral as possible. Also, keep your mouth closed and as neutral as possible.
- For more information, refer to 'Creating a Samsung account.'

## Changing your login method to face recognition

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Edit Profile

You can change your log in method to face recognition. To change the log in method, follow these steps:

1. Enter your password, and then select OK.
2. On the Edit Profile screen, select Sign-in Method. In the drop down list that appears, select Profile image selection and facial recognition (Medium security).
3. Select Done.

## Signing in to a Samsung account using face recognition

(메뉴/123) > 메뉴 > Smart Hub > Samsung Account > Log In

1. Select your Samsung account.
2. If you have set the Samsung account sign in option to Face Recognition, the TV automatically recognizes your face. If recognition fails, try again.

   Your entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognizing your face accurately.

   Once recognition succeeds, the TV logs in to Smart Hub automatically. If the TV recognizes two or more registered faces, a list of corresponding accounts appears. Select the appropriate account.

   If the TV detects an unregistered face, it displays “Unregistered” on the screen.

# Viewing Digital Broadcast Information at a Glance

## Using the guide

(메뉴/123) > 메뉴 > Broadcasting > Guide Try Now Try Now

You can check the program schedules and set up a Schedule Viewing from the Guide.

You can move around the Guide by 2 hours in either direction each time you press the ◀◀ or ▶▶ button. You can only view programs scheduled after the current time.

To select the buttons that appear at the bottom of the screen with the Samsung Smart Control, place a finger on the 포인터 button. A pointer appears on the screen. Move the pointer to a button, and then press the 포인터 button.

The information in the Guide is for digital channels only. Analog channels are not supported.

To view the Guide, you must first set the TV's clock ((메뉴/123) > 메뉴 > System > Time > Clock).

To access the Guide functions after launching the Guide, press and hold the Enter button on the remote control. A popup window listing the following functions appears.

- **Changing the Channel List**

  Filters the channels displayed in the Channel Filter by the following categories: All, and Favorites 1 - Favorites 5.

- **Moving to Schecdule Manager screen**

  Displays the Schedule Manager.

- **Adding to Favorites list**

  Allows you to set a channel that you select in the Edit Favorite Channels as a favorite.

- **Viewing the detailed information of programs**

  Displays detailed information about a selected program. The program information may differ with the broadcast signal and may not be available at all for certain programs.

  – Select a current program on another channel, and then select View Details to Watch or Record the program.

  – Select an upcoming program, and then select View Details to set up a Schedule Viewing or Schedule Recording.

  For more information about Watch or Schedule Viewing, refer to 'Setting Up a Schedule Viewing.'

  You can only view programs scheduled after the current time.

  For more information on Record or Schedule Recording, refer to 'Recording Programs.'

- **Recording programs**

  Allows you to record a program instantly that you select Record.

## Checking current program info

To get information about a show that you are watching, press the Enter button on the standard remote control. To view information about, start instant recording for, or apply the **Timeshift** function on a current program, select it in the Program Info window.

You can view information about, start **Record** of, or apply the **Timeshift** function to a show that you are watching by pressing the Enter button on the Program Info window. In addition, you can view information about upcoming programs by using the left or right directional buttons, or you can set up a **Schedule Viewing** or **Schedule Recording** for a program by pressing the Enter button on the Program Info window displayed for that program.

- Press the Enter or **정보표시** button, on the standard remote control.
- To view program info, you must first set the TV's clock ((**메뉴/123**) > **메뉴** > **System** > **Time** > **Clock**).
- For more information on **Schedule Recording**, refer to 'Recording Programs.'
- Program information may differ with the type of incoming signal and may not be available at all for certain programs.
- For more information on **Schedule Viewing**, refer to 'Setting Up a Schedule Viewing.'

## Changing the broadcast signal

(**메뉴/123**) > **메뉴** > **Broadcasting** > **Antenna** Try Now

You can choose the appropriate DTV mode for your viewing environment. Select **Air** or **Cable**. **Air** is suitable for homes equipped with a separate, over-the-air antenna. **Cable** is suitable for homes that have subscribed to a local cable-service or satellite-service provider.

- You do not need to use this function if your TV is connected to a cable or satellite box.

## Checking digital channel signal info and strength

(**메뉴/123**) > **메뉴** > **Support** > **Self Diagnosis** > **Signal Information** Try Now

You can check the digital channel's signal information and strength.

- If your TV is attached to a separate, over-the-air antenna, you can use the signal strength information to adjust the antenna for increased signal strength and improved HD channel reception.
- This function is only available for digital channels.

# Recording Programs

This function is only available for digital channels. The appears next to programs and channels for which a Schedule Recording has been set.

Read all precautions before using the recording feature. For more information, refer to 'Before Using the Recording and Timeshift Functions.'

## Recording programs

You can record current and upcoming programs.

### Instant recording

Press the 메뉴/123 button on the Samsung Smart Control, and then select ● button. You can record the program instantly.

Press the ● on the standard remote control. However, this button is not available on certain models.

### Using the instant and schedule recording options from the guide

To start instant recording of a current program, select that program from the Guide, and then select Record. To start a schedule recording of a program that will air in the future, select that program from the Guide, press and hold the Enter button, select View Details, and then select Schedule Recording.

Press the Enter or 정보표시 button, on the standard remote control.

### Using the instant and schedule recording options from the Program Info window

To start instant recording or a schedule recording of a program, press the Enter button. The Program Info window appears. To start instant recording of a current program, select ●. To start a schedule recording of a program that will air in the future, press the left or right directional button to move to that program, press the Enter button, and then select .

Press the Enter or 정보표시 button, on the standard remote control.

### Using schedule recording to record on a specified date and time

(메뉴/123) > 메뉴 > Broadcasting > Schedule Manager > Schedule

1. Select Schedule Recording.
2. Specify the Antenna, Channel, Repeat, Start Time, and End Time options for the program you want to record, and then select OK to finish.

## Using the functions available while recording a program

Press the Enter button while recording a program. The following buttons and the recording progress bar appear on the screen.

- **Information**

  Displays detailed information about the program being recorded.

  Program information may differ with the type of incoming signal and may not be available at all for certain programs.

- **REC Time**

  Sets the recording time.

- **Stop Recording** / **Go to Live TV**

  Stops recording. / Shifts viewing to live TV.

## Using the remote control button while recording a program

- Pause / Play

  Press the ▶ or ❚❚ buttons on the remote control.

  When the recording is paused, you can use the following functions. However, no audio is heard while the recording is paused.

  – **Step**: Press the **메뉴/123** button on the Samsung Smart Control, and then select the ❚❚ button to scan through the current program one frame at a time.

  On the standard remote control, press the ❚❚ button.

  – **Slow Playback**: Press the **메뉴/123** button on the Samsung Smart Control, and then select the ▶▶ button to play the current program back at 1/2 the normal speed.

  On the standard remote control, press the ▶▶ button.

- Rewind / Fast Forward

  Press the **메뉴/123** button on the Samsung Smart Control, and then select ◀◀ or ▶▶ button to speed up rewind or fast forward to maximum speed.

  Press the ◀◀ and ▶▶ buttons on the standard remote control.

  This function is not available while you are watching a program that is currently being broadcast.

## Managing the schedule recording list

(**메뉴/123**) > **메뉴** > **Broadcasting** > **Schedule Manager**

You can change the settings of scheduled recording sessions or cancel scheduled sessions altogether.

# Viewing recorded programs

> Featured > My Content

Select a USB recording device. The CONTENTS folder appears. Select a recorded program file from the CONTENTS folder to play the selected file.

## Using the functions available while playing a recording

Press the Enter button on the Program Info window. The following buttons appear. To hide the buttons, press the 복귀 button.

Buttons that appear are different depending on the file being played.

- Pouse / Play

  When the video is paused, you can use the following functions. However, no audio is heard while the video is paused.

  When the recording is paused, you can use the following functions. However, no audio is heard while the recording is paused.

  – **Step**: Select the ❚❚ button, to scan through a video one frame at a time.

  – **Slow Motion**: Select the ▶▶ button to play the video back at 1/4 the normal speed.

- Rewind / Fast forward

  Speeds up rewind to its maximum speed. To restore normal playback speed, press ▶ button.

- Previous / Next

  To restart the current video from the beginning, press the ⏮ button once. To play the next recorded program file, press the ⏭ button.

- **Repeat**

  Play the current file repeatedly or all files in the same folder repeatedly.

- **Highlight Player**

  Displays highlights of the current recording.

  > This function is only available when highlights of a program which was recorded in **Sports Mode** have been saved.

- **Options**

| Function | Description |
|---|---|
| Picture Size | Changes the size of the screen. The supported picture sizes differ with the video. |
| Caption | Turns captions on or off. |
| Picture Mode | Changes the picture mode. |
| Sound Mode | Displays a list of Sound Modes and lets you change the mode. |
| Speaker List | Gives you a choice of which speakers to play the audio through.<br>• TV Speaker: Plays the video sound through the TV speakers.<br>• Audio Out: Plays the video sound through the external speakers.<br>• Speaker Settings: Plays the TV sound through a speaker that you want.<br>• Sound Mode: Changes the video sound mode during playback when you play the video sound through the TV speakers.<br>• Equalizer: Allows you to adjust the loudness of specific frequency ranges to control the richness of the sound. To restore the defaults, select Reset. |
| Audio Language | Displays a list of languages and lets you select the audio language that will be used when you play videos. This function is only available with files that support multi-track sound. |
| Information | Displays detailed information about the current file. |

# Managing recorded files

> Featured > My Content

Select a USB device containing recordings. A list of recordings appears.

## Using the functions for the saved file list

- **Filter By**

  Displays only files that match the selected filter.

- **Sort By**

  Sorts files according to the selected viewing mode.

  This function is not available when **Filter By** is set to **All**.

- **Delete**

  Deletes the selected files, except for locked files.

  This function is not available when **Filter By** is set to **All**.

- **Play Selected**

  Plays the selected files. Select files from the file list and then select **Play**. If the viewing mode is set to **Folder** view, you can select the files included in the same folder only. Change the viewing mode to add a file contained in other folders to the playlist.

  This function is not available when **Filter By** is set to **All**.

# Setting Up a Schedule Viewing

The appears next to programs that have been configured for a Schedule Viewing.

To set up a Schedule Viewing, you must first set the TV's clock ((메뉴/123) > 메뉴 > System > Time > Clock).

## Setting Up Schedule Viewing

### Setting up a schedule viewing for a digital channel

- **The Guide Screen**

  On the Guide screen, use your remote control to highlight, and then select a program you would like to view.

- **The Program Info Screen**

  Press the Enter button while you are watching the TV. The Information screen appears.

  Press the Enter button while you are watching the TV. The Program Info window appears. Press the left or right directional button to move to a program you would like to view, and then Press the Enter button. Select button. Select that appears on the Program Info window. The program is scheduled for viewing.

  Press the Enter or 정보표시 button, on the standard remote control.

### Setting up a schedule viewing for analog channel

(메뉴/123) > 메뉴 > Broadcasting > Schedule Manager Try Now

You can set up a scheduled viewing for an analog channel. You need to know the channel, day or days of the week the program is airing, and the time the program is airing.

## Editing a schedule viewing

(메뉴/123) > 메뉴 > Broadcasting > Schedule Manager

To edit the time, days, or channel of a schedule viewing.

You can set up a maximum total of 30 Schedule Viewing and Schedule Recording entries.

# Using Timeshift

You can pause and rewind live TV as you would a DVD by using **Timeshift**. Activating this function disables the **Broadcasting** function.

To use a Timeshift function, be sure to connect a USB device with the TV.

Read all precautions before using the Timeshift function. For more information, refer to 'Before Using the Recording and Timeshift Functions.'

To activate the Timeshift function while watching TV, press the Enter button, and then select on the Program Info window. The TV displays a progress bar and the following buttons at the top of the screen:

- **Information**

  Displays detailed information about the current program.

  Program information may differ with the type of incoming signal and may not be available at all for certain programs.

  The program information may differ with the type of incoming signal and may not be available at all for certain programs. This button is only available when you are watching a live program.

- **Record**

  Instantly record the program you are currently watching on the TV.

- **Go to Live TV** / **Stop Timeshift**

  Shifts to live TV or exits Timeshift.

## Using the remote control button while activating Timeshift function

- Pause / Play

  Press the ▶ or ❚❚ button to pause or resume watching the current program while using the Timeshift function. The following functions are available while the current program is paused. However, while the current program is paused, there is no audio output.

  When the recording is paused, you can use the following functions. However, no audio is heard while the recording is paused.

  – **Step**: Press the **메뉴/123** button on the Samsung Smart Control, and then select the ❚❚ button to scan through the current program one frame at a time.

    On the standard remote control, press the ❚❚ button.

  – **Slow Playback**: Select the ◀◀ / ▶▶ to play the video back at 1/2 the normal speed.

    Press the ◀◀, ▶▶ buttons on the standard remote control.

- Rewind / Fast Forward

  Press the **메뉴/123** button on the Samsung Smart Control, and then select ◀◀ or ▶▶ buttons to speeds up rewind its maximum speed.

  Press the ◀◀, ▶▶ buttons on the standard remote control.

  This function is not available while you are watching a program that is currently being broadcast.

# Using the Channel List

(메뉴/123) > 메뉴 > Broadcasting > Channel List Try Now

By using the Channel List, you can change the channel or check programs on other digital channels while watching TV. To display the Channel List, place a finger on the 포인터 button on the Samsung Smart Control, and then select the icon that appears at the right side of the screen.

Press the 채널목록 button, on the standard remote control.

The Channel List screen contains the following icons:

- A : An analog channel
- ♥ : A favorite channel
- 🔒 : A locked channel

Press the left directional button. The following functions are available:

- History

  Displays a list of channels that you viewed recently.

- Add a New List

  Allows you to creating a new channel list by adding channels from a favorites list.

  This option is available only if you have registered one or more channels to at least one favorites list.

- Added CH.

  Displays the selected channel list.

- Options

| Function | Description |
|---|---|
| Antenna | Allows you to select Air or Cable as the DTV mode. Air is suitable for homes equipped with separate, over-the-air antennas. Cable is suitable for homes that subscribe to a local cable-service or satellite-service provider. You do not need to use this function if your TV is connected to a cable or satellite box. |
| Edit Channel list | Allows you to rearrange the order of channels in the channel list or remove channels from the channel list. |
| Edit Channel | Allows you to remove channels from the channel index, restore removed channels, and rename analog channels. |
| Edit Favorites | Sets favorite channels.<br>For more information, refer to 'Creating a Personal Favorites List.' |

# Registering, Removing, and Editing Channels

(메뉴/123) > 메뉴 > Broadcasting > Edit Channel Try Now

The Edit Channel screen icons indicate the following:

- A : An analog channel
- : A favorite channel
- : A locked channel

## Registering and removing channels

### Removing Registered Channels

You can remove a registered channel from the channel index. Move the highlight to a channel, and then select it to remove it. Repeat to select additional channels. To select all channels, select Options, and then select Select All from the list. You can also select Deselect All. After you have made your selections, select Delete.

### Adding back removed channels

You can restore channels to the index of channels by adding them back. Select Options to display a list of options. Select Category from the list, and then select All. To unselect a channel, move the highlight to the channel, and then select it. To select all channels, select Options, and then select Select All from the list. You can also select Deselect All. After you have made your selections, select Add.

## Editing registered channels

You can access the following options by selecting **Options** at the bottom left of the screen. The available options may differ with the broadcast signal.

- **Select All** / **Deselect All**

  Selects or deselects all channels displayed on the **Edit Channel** screen.

- **Antenna**

  Allows you to select **Air** or **Cable** as the DTV mode.

- **Category**

  Displays the channels of a selected category in the list. The channels stored in the TV are grouped into the following categories: **All** and **Added Ch.**.

- **Edit Favorites**

  Sets favorite channels.

  For more information, refer to 'Creating a Personal Favorites List.'

- **Rename Channel**

  Renames analog channels. The new name can be up to 5 characters long.

  This function is only available for analog broadcasts.

- **Information**

  Displays detailed information about the current program.

## Locking/Unlocking the specific channels

You can block the specific programs based on their ratings. This function is useful for controlling what children watch on TV.

To setting up your password, set **Channel Lock** to **On**. Set Channel Lock ((**메뉴/123**) > **메뉴** > **Broadcasting** > **Channel Lock**) to **On**. Try Now

- **Locking channels**

  When you enter the PIN, lock the selected channels.

- **Unlocking channels**

  When you enter the PIN, unlock the selected channels.

# Creating a Personal Favorites List

Favorite channels are highlighted in the **Edit Channel** and **Channel List** screens with the ♥ symbol. You can create up to 5 favorite channel lists.

## Registering channels as favorites

(메뉴/123) > 메뉴 > **Broadcasting** > **Edit Favorites**

You can register multiple channels as favorites at the same time

1. Select the channels that you want to add to your Favorites list(s) from the list in the screen.
2. Select **Change Fav.** on the screen.
3. Select **Add** on the screen. The TV adds the channels you selected to the Favorites list you chose.

## Viewing and selecting channels on Favorites lists only

(메뉴/123) > 메뉴 > **Broadcasting** > **Channel List**

You can flip through only the Favorite list channels and select a channel using the channel up/down buttons.

1. Press the left directional button, and then select the favorites list from **Favorites List 1** to **Favorite List 5**.
2. Highlight a channel from the selected Favorites list using the channel up/down buttons, and then select it. The channel changes.

A Favorites list can be selected only if it contains at least one favorite channel.

# Editing a Favorites List

(메뉴/123) > 메뉴 > Broadcasting > Edit Favorites

Rename and edit Favorites lists.

## Using the Edit Favorites screen menu items

You can access the following options by selecting Options on the Edit Favorites screen.

- Select All / Deselect All

  Selects or deselects all channels saved on the TV.

- Copy to Favorites

  Copies channels from one favorite channels list to another.

  This option is available only if you have registered one or more channels to at least one Favorites list.

  For more information, refer to 'Copying channels from one favorites list to another.'

- Rename Favorites

  Rename an existing favorite channels list.

  This option is available only if you have registered one or more channels to at least one Favorites list.

  For more information, refer to 'Renaming a favorites list.'

- Antenna

  Allows you to select Air or Cable.

- Edit Channel

  Allows you to manage the channels saved on the TV.

  For more information, refer to 'Registering, Removing, and Editing Channels.'

## Removing channels from a favorites list

Select **Change Fav.** to move to the favorites list that has the channels you want to remove. Select the channels, and then select **Delete**. The channels are removed.

## Rearranging a favorites list

Select **Change Fav.**, and then select the channels that you want to rearrange from the selected Favorites list.

## Renaming a favorites list

Select **Rename Favorites** from the **Options**. Enter a new name using the keyboard. When finished, select **Done**. The list of favorite lists appears displaying the renamed list.

## Copying channels from one favorites list to another

Select **Copy to Favorites** from the **Options**. Select the favorites lists that you want to copy the selected channels to.

**Copy to Favorites** is only available if there are channels in at least one favorites list.

# Making Sports Programs More Realistic with Sports Mode

(메뉴/123) > 메뉴 > System > Sports Mode Try Now

You can use Sports Mode to get optimal picture and sound settings for sports events, making them appear and sound as if you are there. In addition, if a recording device is connected to the TV when you are using Sports Mode, you can use both the video recording and timeshift functions at the same time while watching the sporting event, as well as watching the highlights extracted from the recorded sports game automatically or manually.

For more information about recording a program and using a recording device, refer to 'Recording Programs.'

For more information about the Timeshift function, refer to 'Using Timeshift.'

## Enabling sports mode

(메뉴/123) > 메뉴 > System > Sports Mode > Sports Mode

You can set Sports Mode to On to optimize the picture and sound modes of the TV automatically for sporting events.

Enabling Sports Mode changes Picture Mode to Stadium and Sound Mode to Stadium, and disables some Picture and Sound menus.

## Extracting highlights automatically

(메뉴/123) > 메뉴 > System > Sports Mode > Auto Highlights Try Now

You can set Auto Highlights to On to configure the TV to extract highlights of a sports match automatically.

However, Auto Highlights is not available with these TV operations:

- Switching the input signal using the 외부입력 button.
- When 3D mode is active
- When Audio Description is on
- When you are viewing the content in My Content
- When the Screen Mirroring function is running
- When you are viewing highlights of the current soccer game in the UHD resolution by using the Highlight Player function
- The performance of Auto Highlights depends on the characteristics of the transmitted signal.

It is advisable to use Auto Highlights only while watching a soccer game. If you use this function for other sporting events, it may display irrelevant picture frames.

Using the functions available while watching sports in sports mode

## You can use the following functions when you press the Enter button in sports mode.

Press the Enter button on the Program Info window. Display the following function in the screen:

- **Zoom**

  Pauses the current screen and zooms in any part of the screen by using 4 directional buttons.

  On the standard remote control, press the A button.

  This function is not available when you are watching 3D channels or when **PIP** or **My CONTENT** is active.

- **Record**

  Instantly records the game that you are currently watching on the TV.

  This function is only available when the recording function is supported.

- **Timeshift**

  You can pause and rewind live TV as you would a DVD by using **Timeshift**.

  This function is only available when the recording function is supported.

- **Information**

  Displays detailed information about the current program.

  This function is only available while you are watching a live program.

## Using the functions available while recording sports in sports mode

Press the Enter button on the Program Info window. Display the following function in the screen:

- **Save as Highlight**

  Saves a video from 10 seconds before pressing this button to 10 seconds after.

  On the standard remote control, press the B button.

  This function is only available when a recording is in progress.

  You can set the TV to automatically save highlights without user intervention. Select (**메뉴/123**) > **메뉴** > **System** > **Sports Mode**, and then set **Auto Highlights** to **On**.

- **REC Time**

  Sets the recording time.

  This function is only available when a recording is in progress.

- **Stop Recording** / **Go to Live TV**

  Stops a recording when you are watching a live program. Switches to a live program when you are watching a recorded program.

  This function is only available when a recording is in progress.

- **Rewind** / **Fast forward**

  Press the **메뉴/123** button on the Samsung Smart Control, and then select ◀◀ or ▶▶ button to speed up rewind or fast forward to maximum speed.

  Press the ◀◀ and ▶▶ buttons on the standard remote control.

  This function is only available when a recording is in progress.

- **Pouse** / **Play**

  Pauses or resumes the video.

  This function is only available when a recording is in progress.

- **Highlight Player**

  Displays the **Highlights Player** screen and plays the highlights saved in the recorded file automatically or manually. **Highlights Player** is not available.

  – Switching the input signal using the **외부입력** button.
  – When 3D mode is active
  – When **Audio Description** is on

  This function is only available when a recording is in progress.

- **Watch Live TV at the same time**

  Allows you to watch a current program in a PIP window while watching a recorded program. To exit PIP mode, press the button again. **Watch Live TV at the same time** is not available.

  – Switching the input signal using the **외부입력** button.
  – When 3D mode is active
  – When **Audio Description** is on
  – When you are viewing a soccer game in the UHD resolution

  This function is only available when a recording is in progress.

  When you are viewing highlights of the current soccer game

## Viewing a game recorded in sports mode

You can view a recorded game using **Recorded TV** on the **My CONTENT** screen.

For more information, refer to 'Viewing recorded programs.'

# TV-Viewing Support Functions

## Setting a service provider

메뉴/123 > 메뉴 > Smart Hub > Set Up Service Provider

You can select a service provider to use. Follow the on-screen instructions to set the signal source and a service provider.

This function is only available on certain models.

## Showing captions

(메뉴/123) > 메뉴 > System > Accessibility > Caption Try Now

You can watch TV broadcasts with captions. Press and hold the button on the Samsung Smart Control to turn the Caption function on or off.

Captions are not displayed by programs that do not support captions.

Press and hold the 자막선택 button on the standard remote control to turn the Caption function on or off.

### Enabling captions

Set Caption to On on Caption ((메뉴/123) > 메뉴 > System > Accessibility > Caption).

The TV cannot control or modify DVD or Blu-ray subtitles. To control DVD or Blu-ray subtitles, use the subtitle feature of the DVD or Blu-ray player and the player's remote control.

### Selecting the caption language

(메뉴/123) > 메뉴 > System > Accessibility > Caption > Caption Mode

Select the caption mode in the list. The Caption Mode lists may differ by the broadcasts.

- Default

  Displays Korean captions.

- Caption 1 ~ Caption 6

  You can select the caption supported on digital channels. Caption 1 is only available in Korea.

  This function is not available for analog broadcasts.

- English / Korean

  Displays English or Korean. When you view a broadcasting with English caption after selecting Korean, display texts incorrectly.

### Changing the font color, caption size, and font opacity

You can change the font color, background color, and size settings.

(메뉴/123) > 메뉴 > System > Accessibility > Caption > Digital Caption Options

- **Picture Size**

  Changes the font size. **Size** is not supported by analog channels.

- **Font Color**

  Changes the font color.

- **Background Color**

  Changes the caption's background color.

- **Font Opacity**

  Changes the caption's opacity.

- **Background Opacity**

  Changes the background's opacity.

- **Return to Default**

  Restores all caption display options to the **Default** setting. The **Default** setting applies the TV station's transmitted settings to the captions. transmitted settings.

The foreground and background color and opacity settings cannot be the same.

## Enabling the audio guide for the video description

(메뉴/123) > 메뉴 > System > Accessibility > Video Description Try Now

You can activate the audio guide for the visually impaired. This function is only available with broadcasts that provide this service. Press and hold the button on the Samsung Smart Control to turn **Video Description** function on or off.

Press and hold the **자막선택** button on the standard remote control to turn the **Video Description** function on or off.

## Scanning for available channels

(메뉴/123) > 메뉴 > Broadcasting > Auto Program Try Now

Automatically scans and indexes all channels received through the TV's antenna input connector.

You do not need to use this function if your TV is connected to a cable or satellite box.

If the TV has saved channels, Auto Program deletes the existing list, and then saves the newly scanned channels.

# Selecting the broadcast audio language

(메뉴/123) > 메뉴 > Broadcasting > Audio Options Try Now

You can select the TV's audio language. This is the language you will hear while watching TV, if the language is included in the broadcast signal. audio language. Audio Options functions differently for analog and digital channels.

To view the current broadcast's audio signal information, press the 정보표시 button on the standard remote control.

## Selecting the Broadcast Audio Language for Digital Broadcasts

- **Selecting a Language** Try Now

  Select Audio Options > Preferred Language, and then select a language. Digital programs are automatically played in the language you selected in their broadcast signal. If the language you selected is not supported by the broadcast signal, the TV will use the default audio language broadcast by the TV station.

## Selecting the Broadcast Audio Language and Other Options for Analog Broadcasts

- **Selecting stereo or mono**

  Select Audio Options > Auto Stereo. You can select an option to apply to the audio of an analog broadcast. Select Auto to set mono or stereo automatically depending on the broadcast signal. Select Manual to set mono for all channels. If you select Auto and the audio that you hear while viewing TV is not good, change to Manual.

- **Listening to Multi-Track Sound** Try Now

  Select Audio Options > Multi-Track Sound. Configure the audio for the current broadcast. Multi-Track Sound can be set to mono or stereo, depending on the broadcast signal or program. This option is automatically set to mono if the broadcast signal or program does not support stereo.

# Viewing 3D channels

(메뉴/123) > 메뉴 > Broadcasting > View 3D Channels

You can set whether to turn on or off 3D channels. When this funtion is set to Off, no 3D channels are displayed on the Channel List and Guide screens.

This function is only available on certain models.

# Fine-tuning analog broadcasts

(메뉴/123) > 메뉴 > Broadcasting > Channel Settings > Fine Tune Try Now

When analog pictures become shaky and full of noise, fine-tune the signal to clear up the picture.

This function is only available for analog broadcasts.

# Adjusting the Picture Quality

## Choosing a picture mode

(메뉴/123) > 메뉴 > Picture > Picture Mode Try Now

You can select the picture mode that provides the best viewing experience.

- Dynamic

  Makes the picture clearer when the ambient lighting is so bright that it makes the picture difficult to see.

- Standard

  Is the default mode suitable for most environments.

- Natural

  Reduces eye strain.

- Movie

  Darkens the screen, reduces glare, and relieves eye fatigue. Use this mode while viewing the TV in a darkened room or watching a movie.

- Entertain

  Sharpens images for a more dynamic viewing experience.

  When the Input source is set to PC, Standard and Entertain modes are only available.

  When a PC is connected to the TV, but the Entertain mode is not available, set Edit Name to DVI PC or PC.

- Stadium

  When you set Sports Mode ((메뉴/123) > 메뉴 > System > Sports Mode > Sports Mode) to On, both Picture Mode and Sound Mode are automatically set to Stadium. The TV changes the picture and sound settings so that they are suitable for sporting events.

# Adjusting the picture quality

(메뉴/123) > 메뉴 > Picture > Backlight, Contrast, Brightness, Sharpness, Color or Tint (G/R)

You can adjust the following picture quality settings manually for each combination of input source and picture mode.

Select Picture Mode to adjust picture quality, then set to following options:

- Backlight Try Now

  Adjusts the brightness of individual pixels. Decrease this brightness to reduce power consumption.

- Contrast Try Now

  Adjusts the screen contrast.

- Brightness Try Now

  Adjusts the overall brightness.

- Sharpness Try Now

  Sharpens or dulls the edges of objects.

- Color Try Now

  Adjusts the overall color saturation.

- Tint (G/R) Try Now

  Adjusts the ratio of green to red. Increase the green value to saturate the greens and the red value to saturate the reds.

The TV saves the adjusted values for the current input source and picture mode. These values remain in effect each time you select the same input source and picture mode.

The Color and Tint (G/R) settings cannot be adjusted when the TV is connected to a computer via an HDMI-to-DVI cable.

## Applying the current picture settings to other input sources

(메뉴/123) > 메뉴 > Picture > Apply Picture Mode Try Now

You can apply the picture quality settings to the current source and other input sources.

- All Sources

  Applies the settings to all external devices connected to the TV.

- Current Source

  Applies the settings to the current source only.

# Adjusting advanced settings

(메뉴/123) > 메뉴 > Picture > Advanced Settings Try Now

You can fine-tune how images are displayed on the TV screen for the Standard and Movie picture modes.

Advanced Settings is only available when Picture Mode is set to Standard or Movie.

When the TV is connected to a computer via an HDMI-to-DIV cable, only White Balance and Gamma are available.

- Dynamic Contrast Try Now

  Automatically adjusts the screen contrast for an optimal contrast setting.

- Black Tone Try Now

  Adjusts the black color depth.

- Flesh Tone Try Now

  Darkens or lightens skin tones.

- RGB Only Mode Try Now

  Adjusts the red, green, and blue levels individually.

- Color Space Try Now

  Adjusts the range of colors that can be displayed on the screen.

  – Auto: automatically adjusts the color space to match the input signal.
  – Native: applies a range of colors that is wider than the input signal.
  – Custom: allows you to adjust the color space manually.

  Color Space is only set Custom, available the Color,

- White Balance Try Now

  Adjusts the color temperature of the picture to make white objects look white and the overall picture appear natural.

  2 Point: Allows you to adjust red, green, and blue luminosity with the offset menu and brightness with the gain menu. Reset allows you to restore the default values.

  10 Point: Divides red, green, and blue into 10 sections each, and allows you to modify the white balance by adjusting the brightness of each section. Level allows you to select the section to adjust.

  You can use the 10 Point function only when Picture Mode is set to Movie. This function may not be supported by some external devices.

- Gamma Try Now

  Adjusts the primary color intensity.

# Adjusting picture options

(메뉴/123) > 메뉴 > Picture > Picture Options Try Now

You can adjust the picture options to optimize your viewing experience. Select a picture mode and then adjust the picture options.

Select **Picture Mode**, then adjust following options:

- **Color Tone** Try Now

  Adjusts the color tone. The color tone you select is stored in the TV's memory. When you change the current picture mode, the stored color tone is applied to the new picture mode automatically.

  > **Cool** and **Standard** are only available when **Picture Mode** is set to **Dynamic**.

  > **Color Tone** is only available when the TV is connected to a computer via an HDMI-to-DVI cable.

- **Digital Clean View** Try Now

  Reduces static and ghosting caused by a weak signal. When you select **Auto Visualization**, the TV displays the signal strength on the bottom of the screen. Green indicates the best possible signal.

  > This function is available for analog channels only.

- **MPEG Noise Filter** Try Now

  Reduces MPEG noise and improves video quality.

- **HDMI Black Level** Try Now

  Compensates for effects caused by a low black level, such as low contrasts and dull colors.

  > This function is only available when the input signal, connected to the TV via an HDMI connector, is set to RGB444.

- **Film Mode** Try Now

  Optimizes the picture quality for movies.

  > This function is only available when the input signal is TV, AV, Component (480i, 1080i), or HDMI (1080i).

- **HDMI UHD Color**

  If an external UHD player is connected to the TV, follow these steps to convert the TV's HDMI connector to a mode optimized for UHD 50P/60P signals.

  - If you set the HDMI connection to **On**, the TV turns off and then on automatically.
  - The HDMI connection with **HDMI UHD Color** set to **Off** supports up to UHD 50P/60P 4:2:0 input signals, while the HDMI connection with **HDMI UHD Color** set to **On** supports up to UHD 50P/60P 4:4:4 and 4:2:2 input signals. For more information, refer to 'Supported Resolutions for each of UHD Input Signals.'
  - For the 7000 and 7500 series or higher models, each HDMI connection can be individually optimized for **HDMI UHD Color**. When you connect the TV to the external device that supports only UHD 24 or 30 Hz frequency or any FHD frequency, the HDMI UHD Color function may not be available. In this case, set **HDMI UHD Color** to **Off**.
  - For the 6800, 6900, 7200 series models, make sure to connect to the HDMI IN 1 (STB/DVI) port of the TV.
  - Although the HDMI cable is connected to this port, the **HDMI UHD Color** function is not available on the 6300 series models.

- **Auto Motion Plus**

  Removes blurring and judder from scenes with rapid movement. If you select **Custom**, you can configure **Blur Reduction** and **Judder Reduction** manually and set **LED Clear Motion** to **On** for a sharper LED image. To return to the default settings, select **Reset**.

  - This function is only available on certain models.
  - When **LED Clear Motion** is set to **On**, the screen appears darker than when it is Off.

- **Smart LED**

  Controls the brightness of individual areas on the screen to maximize contrast automatically.

  - This function is only available on certain models.

- **Cinema Black**

  In **Movie** mode, this function dims the top and bottom areas of the video image to provide a more immersive viewing experience.

  - This function is only available on certain models.

- **LED Clrea Motion**

  Controls LED backlight duty to move picture more clearly.

  - This function is only available on certain models.
  - When **LED Clear Motion** is set to **On**, the screen appears darker than when it is Off.

# Viewing in 3D

This function is only supported for the 7000 and 7500 series model or higher.

(메뉴/123) > 메뉴 > Picture > 3D

You can view 3D media content and broadcasts. To view 3D content, you need to wear current Samsung 3D Active Glasses. IR-type Samsung 3D Active Glasses and third-party 3D glasses are not supported.

To use the 3D function, you must purchase the 3D glasses.

Before viewing 3D content, carefully read the health and safety information concerning 3D viewing. For more information, refer to 'Read Before Using 3D Mode.'

Whether 3D video is displayed in true HD is usually determined by the quality and format of the video.

## Starting 3D

(메뉴/123) > 메뉴 > Picture > 3D

Put on and then turn on the Samsung 3D glasses, and then select the specified 3D Mode.

- Off (Off)

  Deactivates 3D viewing.

- 2D→3D (Normal)

  Converts normal images to 3D images.

- (L/R)

  Splits a single image into left and right overlapping images to create the 3D effect.

- (T/B)

  Splits a single image into top and bottom overlapping images to create the 3D effect.

Note that the 3D modes that are available at any given time depend on the format of the 3D content. 3D Mode is automatically configured for most 3D content.

The supported resolutions vary for each mode. For more information, refer to 'Supported Resolutions for 3D Modes.'

The ideal viewing distance is three times the height of the screen or more. 3D images may not appear if you do not adhere to the recommended viewing angle or distance.

The 3D function may not work properly if there is another 3D product or an electronic device running nearby. If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses.

The left and right 3D images may initially overlap when the TV is turned on. It takes a moment for the display to optimize and the overlapping to stop.

When you select to use the 3D mode, note the following limitations:

- The 3D mode is automatically disabled when you launch Smart Hub.
- PIP cannot be used.
- Certain Picture options are disabled.

# Adjusting 3D effects

(메뉴/123) > 메뉴 > Picture > 3D

Configures the viewpoint, depth, and other 3D settings for a custom viewing experience.

All 3D effects with the exception of **3D Auto View** can only be used while watching 3D content.

- **3D Perspective**

  Adjusts overall 3D perspective for images on the screen.

- **3D Depth**

  Adjusts overall 3D depth for images on the screen.

  This function cannot be used if **3D Mode** is set to (L/R) or (T/B).

- **L/R Change**

  Switches the left image to the right image and vice versa.

- **3D → 2D**

  Converts 3D images to 2D images.

  This function is not available if **3D Mode** is set to (Normal) or (Off).

- **3D Auto View**

  Activates **3D Mode** automatically whenever it detects 3D content or a 3D broadcast.

- **3D Optimization**

  Allows you to optimize 3D pictures with an adjustment bar.

  You might not be able to view the TV in 3D mode while some applications are running. To view the TV in 3D mode, exit those applications.

# Picture Support Functions

## Viewing a picture-in-picture (PIP)

(메뉴/123) > 메뉴 > Picture > PIP Try Now

While viewing video from an external device such as a Blu-ray player on the main screen, you can view a TV broadcast in a picture-in-picture (PIP) window.

- **PIP**

  Activates/deactivates PIP. Selects the input source for the **PIP** window.

- **Antenna**

  Selects **Air** or **Cable** as the digital channel mode.

- **Channel**

  Selects the PIP channel.

- **Size**

  Sets the PIP window size.

- **Position**

  Sets the PIP window position.

- **Select Sound**

  Selects the audio source. To adjust the connected audio device's volume, you must use the Sound Share function or connect the audio source to the TV's HDMI (ARC) port.

PIP cannot be used while **Smart Hub** or **3D** is active.

Playing a game or using the karaoke function on the main screen can result in lower PIP picture quality.

The PIP function is only available under the following conditions: 1) The main screen's source is a Component or HDMI connection. 2) The input resolution is less than FHD (Full HD). The PIP window supports digital channels only and does not support UHD channels.

# Changing the picture size and position

## Changing the picture size

(메뉴/123) > 메뉴 > Picture > Picture Size > Picture Size Try Now

You can change the size of the picture displayed on the TV screen.

- 16:9

  Sets the picture size to the 16:9 wide screen format.

- Zoom

  Magnifies 16:9 pictures vertically. A magnified picture can be moved up and down.

- Custom

  Magnifies or shrinks 16:9 pictures vertically and/or horizontally. A magnified or shrunk picture can be moved left, right, up, and down.

- 4:3

  Sets the picture size to the basic 4:3 mode.

⚠ **Do not watch TV in 4:3 mode for an extended period of time. This action may cause black bars to appear and rest for a while at the top, bottom, left, and right sides of the screen. Note that this information is not presented on the Warranty.**

Supported picture sizes differ with the input signal. For more information about supported picture sizes, refer to 'Picture sizes and input signals.'

### Fitting the picture to the screen

(메뉴/123) > 메뉴 > Picture > Picture Size > Fit to screen

You can configure the TV so that the full picture fits the screen in the size you have chosen without any cutoff.

This function is not available depending on the Picture Size.

### Adjusting the picture position

(메뉴/123) > 메뉴 > Picture > Picture Size > Zoom/Position Try Now

You can adjust the picture position.

This function is not available depending on the Picture Size. However, you cannot change the picture position when the TV is tuned to a digital channel and Picture Size is set to Fit to screen.

## Listening to audio only (Picture Off)

(메뉴/123) > 메뉴 > Picture > Picture Off Try Now

You can turn off the screen and play only audio through the speakers. To turn the screen back on, press any button other than the Power and Volume buttons.

## Resetting the picture mode settings

(메뉴/123) > 메뉴 > Picture > Reset Picture Try Now

You can reset the current picture mode to its factory defaults. This action does not affect the settings of other picture modes.

# Adjusting the Sound Quality

## Choosing a sound mode

(메뉴/123) > 메뉴 > Sound > Sound Mode Try Now

You can select a sound mode to optimize your listening experience.

- Standard

  Is the default mode suitable for most environments.

- Music

  Emphasizes music instead of voices.

- Movie

  Provides the best sound for movies.

- Clear Voice

  Emphasizes voices.

- Amplify

  Increases the overall intensity of high-frequency sound to help hearing-impaired listeners.

- Stadium

  When you set Sports Mode ((메뉴/123) > 메뉴 > System > Sports Mode > Sports Mode) to On, both Picture Mode and Sound Mode automatically so that the sound settings are fixed at settings most suitable for sporting events.

# Applying sound effects

(메뉴/123) > 메뉴 > Sound > Sound Effect Try Now

You can apply sound effects to alter how the TV emits sound.

- Virtual Surround Try Now

  Produces sound that makes you feel like you are sitting in a movie theater or concert hall.

- Dialog Clarity Try Now

  Increases voice intensity to make dialog clearer.

- Headphone Surround

  Experience home theater-like surround sound through your headphones.

  This function is only available on certain models.

- Balance Try Now

  Allows you to adjust the sound settings of the left and right speakers for a better sound balance. To restore the defaults, select Reset.

- Equalizer Try Now

  Allows you to adjust the loudness of specific frequency ranges to control the richness of the sound. To restore the defaults, select Reset.

This function is only available when Sound Mode is set to Standard.

This function is not available when you are listening to audio through external speakers.

# Using the Sound Support Functions

## Selecting speakers

(메뉴/123) > 메뉴 > Sound > Speaker Settings > Speaker Select Try Now

You can select which speakers the TV uses for audio output.

When **Speaker Select** is set so that sound comes from external speakers only, the Volume and Mute buttons and some Sound functions are disabled.

## Specifying the TV's installation type

(메뉴/123) > 메뉴 > Sound > Speaker Settings > TV Speaker > TV Installation Type

You can specify the TV's installation type, either **Wall Mount** or **Stand**, to optimize the TV's sound automatically.

## Listening to TV sound through a Samsung Bluetooth audio device

(메뉴/123) > 메뉴 > Sound > Speaker Settings > TV SoundConnect

You can connect Samsung Bluetooth audio devices to the TV. They must be paired using the TV's Bluetooth function. For more information on pairing, refer to the Samsung Bluetooth audio device's operating manual.

- **Add New Device**

  Adds a new device to the list of paired devices. If **Add New Device** is set to **Off**, the connection signals from new devices are ignored.

- **Samsung Audio Device List**

  Displays a list of paired Samsung audio devices. Select a device to display its menu options. You can activate/deactivate the audio device or remove it from the list.

This function is only available on certain models.

Bluetooth is a short-distance wireless communication protocol allowing information exchange between connected mobile phones, laptops, earphones and headphones with Bluetooth compatible devices. Before using a Bluetooth device, refer to 'Read Before Using Bluetooth Devices.'

You can't use Bluetooth devices, TV SoundConnect, and the Surround feature simultaneously.

**TV SoundConnect**, **Surround**, and Bluetooth headphones can't be used simultaneously.

# Listening to TV sound through a Samsung Multiroom Link compatible speaker

(메뉴/123) > 메뉴 > Sound > Speaker Settings > Multiroom Link

You can connect a Samsung Multiroom Link compatible speaker to the TV to enjoy a richer sound.

- **Multiroom Link Settings**

  Sets the Samsung Multiroom Link compatible speaker(s) to one of the following options.

  - **Surround**: Select this option when you want to enjoy a surround system using multiple Samsung Multiroom Link compatible speakers in a single space or room.
  - **SoundBar+Surround**: Select this option when you want to enjoy a surround sound system by connecting a soundbar and two speakers to the TV in one space or room.

- **Volume Level**

  Adjusts the volume of the speaker you have selected in the speakers' list.

- **Speaker Test**

  Sends a test sound to each speaker to make sure that your Multiroom Link system works properly.

- **Edit Name**

  Allows you to give a name to each speaker.

The **Multiroom Link** function is only available when at least one Samsung Multiroom Link compatible speaker is connected to the TV.

The sound quality may be affected by the condition of your wireless network.

The **Multiroom Link** function is deactivated when you activate **Screen Mirroring**.

**TV SoundConnect**, **Surround**, and Bluetooth headphones can't be used simultaneously.

For more information, refer to the Multiroom Link manual on the Samsung web site. (www.samsung.com > SUPPORT > Firmware Manuals & Downloads)

# Listening to the TV through Bluetooth headphones

(메뉴/123) > 메뉴 > Sound > Speaker Settings > Bluetooth Headphones

You can connect Bluetooth headphones to the TV. They must be paired using the TV's Bluetooth function. For more information on pairing, refer to the Bluetooth headphone's operating manual.

- **Bluetooth Headphone List**

  Displays a list of Bluetooth headphones that can be paired with the TV. Select a Bluetooth headphone to display its menu options. From this menu, you can activate/deactivate (i.e., pair/unpair) the Bluetooth headphone or remove it from the list.

- **Multi-output Audio**

  Allows you to listen to audio through the TV's speakers and the connected bluetooth headphones simultaneously.

This function is only available on certain models.

When **Multi Link Screen** is terminated, bluetooth headphone connection is disconnected.

If the TV fails to find a headphone, place the headphone closer to the TV, and then select **Refresh**.

When you turn on a paired Bluetooth headphone, the TV detects it automatically, and then displays a pop-up window. Use this pop-up window to activate/deactivate the Bluetooth headphone.

Before using a Bluetooth device, refer to 'Read Before Using Bluetooth Devices.'

# Enabling digital audio output

(메뉴/123) > 메뉴 > Sound > Additional Settings Try Now

Since this Smart TV is Sony/Philips Digital Interface Format (S/PDIF)-enabled, you can set the TV to provide digital audio output to various digital audio devices, such as speakers, A/V receivers, and home theaters, by adjusting the following settings.

- **HDMI Audio Input Format**

  Sets the format of audio input signal suitable for the external device connected to the TV's HDMI port.

- **Audio Format** Try Now

  Selects the digital audio output (S/PDIF) format. The available formats are dependent on the input source.

- **Audio Delay** Try Now

  Helps correct timing mismatches between the audio and video tracks when you are watching TV and listening to audio through a digital audio device. You can adjust the delay by up to 250 ms.

- **Dolby Digital Comp** Try Now

  Sets the Dolby Digital compression mode.

- **HD Audio**

  Provides the TV sound resampled at HD audio quality.

  Standard audio signals are sampled at 48 kHz while HD audio signals are sampled at 96 kHz.

  Some S/PDIF receivers may not be compatible. For incompatible receivers, deactivate **HD Audio** mode and use normal audio mode instead.

  Some external audio players connected via HDMI, Bluetooth, or Wi-Fi networks are not able to play the HD audio signals.

- **Auto Volume** Try Now

  Automatically adjusts the TV's volume level when you change channels, video sources, or content so that the volume level remains the same for all sources. **Auto Volume** can modify the volume up to 12 db to equalize the sound. **Normal** can applies a normal level of volume adjustment, and **Night** can applies a slightly lower volume level. This option is ideal for late-night TV viewing.

  If you want to use the volume control of a connected source device to control the sound, deactivate **Auto Volume**. When you use **Auto Volume** with a source device, the device's volume control may not function properly.

## Listening to 3D audio in 3D mode

(메뉴/123) > 메뉴 > Sound > 3D Audio

You can adjust audio depth so that the TV provides immersive sound that matches the pop-up effect of the 3D video that you are viewing.

This function is only available on certain models.

This function is only available in 3D mode.

## Resetting all sound settings

(메뉴/123) > 메뉴 > Sound > Reset Sound Try Now

Resets all sound settings to the factory defaults.

# Setting the Time and Using the Timer

## Setting the current time

(메뉴/123) > 메뉴 > System > Time > Clock Try Now

You can set the clock manually or automatically. Once the clock is set, you can view the current time on the TV anytime. Press the 메뉴/123 button and then select INFO.

- Press the 정보표시 button on the standard remote control.
- The clock must be reset every time the power is disconnected.

### Setting the clock using digital broadcast info

(메뉴/123) > 메뉴 > System > Time > Clock > Clock Mode Try Now

You can have the TV automatically download time information from a digital channel and set the current time. To activate this function, set Clock Mode to Auto.

- This function works only when the TV's antenna jack is connected to either an antenna or a cable output and is receiving digital broadcasts.
- The accuracy of the time information received may differ with the channel and signal.
- If the TV is connected to a set-top box or satellite box through HDMI or Component connectors, you must set the current time manually.

### If the clock is wrong in auto mode...

(메뉴/123) > 메뉴 > System > Time > Clock > Time Offset Try Now

You can offset the clock in 1-hour increments by as much as -/+ 12 hours if the TV fails to display the correct automatically set time.

- Time Offset adjusts the time through a network connection. This function is only available if Clock Mode is set to Auto and the TV is connected to the Internet though a local area network.
- Time Offset adjusts the time if the TV fails to receive time information through normal digital broadcast signals.

### Setting the clock manually

(메뉴/123) > 메뉴 > System > Time > Clock > Clock Set Try Now

You can set the clock manually. Set Clock Mode to Manual, and then input present date and time in Date and year field.

# Using the timers

## Using the sleep timer

(메뉴/123) > 메뉴 > System > Time > Sleep Timer Try Now

You can use this function to automatically shut off the TV after a pre-set period of time.

You can set the timer in 30 minute increments for up to 3 hours.

## Turning on the TV using the on timer

(메뉴/123) > 메뉴 > System > Time > On Timer Try Now

You can set On Timer to make the TV turn on automatically at a specific time. You can use up to three separate configurations: On Timer 1, 2, and 3. On Timer is only available when Clock has already been set.

- Settings

  If you select Manual, you can highlight and select each day to select the specific days that you want On Timer to turn on the TV.

- Time
- Volume
- Source

  From the list, select a signal source for the TV to use when it turns on. If you want to play content saved in a USB device or content from an HDMI or Component source, such as a DVD player, Blue-ray player, or set-top box, connect the device to the TV before you start On Timer setup. For On Timer to function, you must keep the device connected to the TV.

- **Antenna**

  Allows you to select a broadcast signal source, **Air** or **Cable**, when Source is set to **TV**.

- **Channel**

  Allows you to select a channel when Source is set to **TV**.

- **Music** / **Photo**

  Allows you to specify a USB device folder containing music files in the music field and/or a folder containing photos in the photo field when **Source** is set to **USB**. If you select both a folder that contains music files and a folder that contains photo files, the TV plays the music files and displays the photos at the same time.

  - If the folder that you choose has sub-folders, you can select a sub-folder in the same fashion.
  - No slideshow starts if there is only one image file on the USB device.
  - Folders with long names cannot be selected.
  - Make sure to use different folder names for multiple USB devices.
  - Use a USB memory stick or multi-card reader. **On Timer** may not work with certain battery-powered USB devices, MP3 players, or PMPs because the TV may take too long to recognize the device.

## Turning off the TV using the off timer

(메뉴/123) > 메뉴 > System > Time > Off Timer Try Now

You can set **Off Timer** to turn off the TV automatically at a specified time.

You can set up three separate configurations: **Off Timer 1**, **2** and **3**. **Off Timer** is only available when **Clock** has already been set.

- **Settings**

  Sets days of the week that the TV is turned off automatically. If you select **Manual**, you can select each specific day.

- **Time**

  Sets the time for the TV to turn off automatically.

# Using the Screen Burn Protection and Energy Saving Functions

## Preventing screen burn

(메뉴/123) > 메뉴 > System > Auto Protection Time Try Now

You can use the Screen Burn Protection function to protect the screen. Still images can leave burn-in after-images if left on the screen for a long period of time.

Select a time setting from the list. If a still image is shown on the screen for longer than the time that you selected, the TV automatically activates the Screen Burn Protection function.

## Reducing the energy consumption of the TV

(메뉴/123) > 메뉴 > System > Eco Solution Try Now

You can adjust the brightness level of the TV and prevent overheating to reduce overall power consumption.

- Energy Saving Try Now

  Allows you to select a brightness setting from the list to reduce the TV's power consumption.

- Eco Sensor Try Now

  Automatically adjusts the brightness level of the TV, according to the ambient light level, to reduce power consumption. If the Eco Sensor has adjusted the screen's brightness level, you can select the Min. Backlight or Min. Cell Light (in applicable models) to manually adjust the minimum screen brightness.

- No Signal Power Off Try Now

  Allows you to select a length of time from the list. If no signal has been received for the specified duration, the TV automatically cuts off the power to reduce power consumption.

- Auto Power Off Try Now

  Automatically turns off the TV to prevent overheating when the TV remains on for the specified period of time without any user input.

- Motion Lighting

  Adjusts the brightness in response to on-screen movements to reduce power consumption.

This feature is only available when the Picture Mode is set to Standard and is not available in 3D mode.

This function is deactivated when you adjust a picture quality setting, such as Contrast and Brightness.

# Using Anynet+ (HDMI-CEC)

You can use Anynet+ (HDMI-CEC) to use the TV's remote control to control all external devices that support HDMI-CEC. Note that Anynet+ (HDMI-CEC) can only be set by using the remote control.

## Setting up Anynet+ (HDMI-CEC)

(메뉴/123) > 메뉴 > System > Anynet+ (HDMI-CEC) Try Now

- Anynet+ (HDMI-CEC) Try Now

  You can enable or disable Anynet+ (HDMI-CEC). Set to Off or On to disable or enable all Anynet+ related functions.

- Auto Turn Off Try Now

  When set to Yes, turns off Anynet+ compatible external devices when the TV is turned off.

  This function is not supported by some Anynet+ compatible devices.

- Device search Try Now

  Automatically searches for and identifies Anynet+ (HDMI-CEC) compatible external devices that are connected to the TV.

## Using Anynet+ (HDMI-CEC)

### Viewing Anynet+ (HDMI-CEC)-compliant devices

After connecting external devices to the TV, select Device Search ((메뉴/123) > 메뉴 > System > Anynet+ (HDMI-CEC) > Device Search). The TV displays a list of Anynet+ (HDMI-CEC)-compliant devices that you can set up as Anynet+ (HDMI-CEC)-enabled devices (i.e., devices that can be controlled with the TV's remote control). To set up an Anynet+ (HDMI-CEC)-compliant device as an Anynet+ (HDMI-CEC)-enabled device, you must select it on the Source screen. Follow the instructions in the next section.

If an external device is set up as both an Anynet+-enabled device (i.e., a device that can be controlled with the TV's remote control) and a Universal Remote-enabled device (i.e., a device that can be controlled with the Universal Remote), it can be only controlled with the Universal Remote.

If an external device is set up as both an Anynet+ enabled device (i.e., a device that can be controlled with the TV's remote control) and a Universal Remote-enabled device (i.e., a device that can be controlled with the Universal Remote), it can be only controlled with the Universal Remote.

### Setting up as an Anynet+ (HDMI<hypeniminus/>CEC)<hypeniminus/>enabled device

You can access the device's menu with the TV's remote control once control of the device has switched over to the TV and the TV's remote control.

1. Press the **외부입력** button. The Source screen appears. Select a connected device, and then press the down directional button.
2. Select **Anynet+ (HDMI-CEC)** from the **Tools** list. The selected device is set up as an Anynet+ (HDMI-CEC)-enabled device. The following menu options are available.

   The menu options displayed on the menu may differ by external device.

- **Anynet+ (HDMI-CEC)**

  Sets up the selected device as an Anynet+ (HDMI-CEC)-enabled device and then displays a list of Anynet+ (HDMI-CEC)-compliant devices connected to the TV. Select **View TV** to exit Anynet+ (HDMI-CEC), and start watching TV.

## Read before connecting an Anynet+ (HDMI-CEC)

- You can configure the TV's universal remote control to control third-party cable boxes, Blu-ray players, and home theaters that do not support HDMI-CEC. For more information, refer to 'Controlling External Devices with the TV Remote - Using the Universal Remote.'
- Anynet+ cannot be used to control external devices that do not support HDMI-CEC.
- Anynet+ devices must be connected to the TV with an HDMI cable. Note that some HDMI cables may not support Anynet+ (HDMI-CEC).
- The TV remote control may not work under certain circumstances. If this occurs, select the Anynet+ device again.
- Anynet+ (HDMI-CEC) works only with external devices that support HDMI-CEC and only when those devices are either in standby mode or turned on.
- Anynet+ (HDMI-CEC) can control up to 12 compatible external devices (up to 3 of the same type) except for home theaters. Anynet+ (HDMI-CEC) can control only one home theater system.
- To listen to 5.1-channel audio from an external device, connect the device to the TV via an HDMI cable and connect the home theater system directly to the TV's digital audio output connector.

# Updating the TV's Software

(메뉴/123) > 메뉴 > Support > Software Update Try Now

You can view your TV's software version and update it if necessary.

## Updating the TV's software to the latest version

(메뉴/123) > 메뉴 > Support > Software Update > Update now Try Now

You can update your TV's software by downloading the update from the Internet directly to your TV or copying the update from a USB device that contains it to your TV.

- This function requires an Internet connection.
- Save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.

⚠ **DO NOT turn off the TV's power until the update is complete. The TV will turn off and on automatically after completing the software update. All video and audio settings return to the default settings after a software update.**

## Updating the TV automatically

(메뉴/123) > 메뉴 > Support > Software Update > Auto Update Try Now

If the TV is connected to the Internet, you can have the TV's software update itself automatically while you are watching the TV. When the background update is completed, it is applied the next time the TV is used.

- This function may take a longer time if a different networking function is running concurrently.
- This function requires an Internet connection.
- If you agree to the Smart Hub terms and conditions, **Auto Update** is set to **On** automatically. If you do not want the TV's software to update itself automatically, set **Auto Update** to **Off**.

# Protecting the TV from Hacking and Malicious Code

(메뉴/123) > 메뉴 > System > Smart Security

You can use Smart Security to protect the TV from hacking and malicious code when it is connected to the Internet.

## Checking the TV and connected storage for malicious code

(메뉴/123) > 메뉴 > System > Smart Security > Scan

You can scan the TV and connected media to detect the presence of malicious code. If there is no malicious code detected, a notification window appears on the screen.

### If malicious code is detected...

If malicious code is found, the results of the scan will appear on the screen. This result window displays all malicious code found. You can either quarantine (isolate) the code or block it from executing.

1. Select all the malicious code to either quarantine or block.
2. Select Isolate or Block. These options relocate the selected malicious code to the Isolated List or Blocked List.

   The Isolated List displays all quarantined malicious codes.

   The Blocked List displays all blocked malicious code.

## Configuring additional functions

(메뉴/123) > 메뉴 > System > Smart Security > Settings

You can scan your TV against viruses or activate additional security functions, for example, the network security function.

- Antivirus

  Monitors the TV in real-time to prevent viruses from infecting the TV.

- Network Security

  Protects the TV from hacking to minimize a leaks of private information.

- Camera

  Permits the cameras connected to the TV to be used.

- Microphone

  Permits the microphones connected to the TV to be used.

- Auto Scan

  Makes the TV automatically scan itself and any connected storage media when it is turned on.

- Auto Isolate

  Adds malicious codes found during the scanning process to the Isolated List automatically.

# Using Other Functions

## Running the accessibility functions quickly

You can use the **Accessibility Shortcuts** menu to quickly run the accessibility functions for the impaired. Press and hold the button on the Samsung Smart Control. The **Accessibility Shortcuts** menu provides the **Voice Guide, Visually Impaired, Caption**, **High Contrast**, **Enlarge**, **Learn Remote Control**, and **Multi-Output Audio** menu options.

- On the standard remote control, press and hold the **자막선택** button.
- Even if **Voice Guide** is set to **Off** or the Mute mode is activated, you can run the Voice Guide function from the **Accessibility Shortcuts** menu.

## Enabling voice guides for the visually impaired

(**메뉴/123**) > **메뉴** > **System** > **Accessibility** > **Voice Guide**

You can activate voice guides that describe the menu options aloud to aid the visually impaired. To activate this function, set **Voice Guide** to **On**. With Voice Guide on, the TV provides voice guides for channel change, volume change, information on current and upcoming programs, schedule viewing, other TV functions, and various content on **Web Browser**, **Search** or **My Content**.

- The Voice Guide is provided in the language that is specified on the **Menu Language** screen. However, some languages are not supported by Voice Guide even though they are listed in the **Menu Language** screen. **English** is always supported.
- If **Voice Guide** is set to **On**, the Samsung Smart Control's motion sensor does not work. To use the motion sensitivity sensor, set **Voice Guide** to **Off**.

### Changing the volume, speed, and pitch of the voice guide

You can configure the volume, speed, pitch, and level of the Voice Guide.

- **Volume**

  Changes the Voice Guide's volume level.

- **Pitch**

  Tunes the pitch of the Voice Guide.

- **Speed**

  Changes the Voice Guide's tempo.

## White text on black background (high contrast)

(메뉴/123) > 메뉴 > System > Accessibility > High Contrast

You can change major service screens to white text on a black background or change the transparent TV menus to opaque so that text can be more easily read. To activate this function, set High Contrast to On.

## Adjusting the menu transparency

(메뉴/123) > 메뉴 > System > Accessibility > Menu Transparency Try Now

You can adjust the menu's transparency.

Setting High Contrast ((메뉴/123) > 메뉴 > System > Accessibility > High Contrast) to On automatically switches the menu display mode to opaque. You cannot manually change the Menu Transparency settings.

## Enlarging font (for the visually impaired)

(메뉴/123) > 메뉴 > System > Accessibility > Enlarge Try Now

You can zoom in the font on the screen. To activate this function, set Enlarge to On.

## Learning about the remote control (for the visually impaired)

(메뉴/123) > 메뉴 > System > Accessibility > Learn Remote Control

This function helps individuals with a visual impairment to learn the positions of the buttons on the remote control. When this function is activated, you can press a button on the remote control and the TV will tell you its name. To return to the previous screen, press the 복귀 button twice. To exit, press the 종료 button twice.

## Listening to the TV through Bluetooth headphones (for the hearing impaired)

(메뉴/123) > 메뉴 > Sound > Speaker Settings > Bluetooth Headphones > Multi-Output Audio

You can turn on both the TV speaker and Bluetooth headphones at the same time. With this function active, when you adjust the TV's volume, you can set the volume of the Bluetooth headphones to be louder than TV speaker.

This function is only available on certain models.

When you connect the Bluetooth headphones to the TV, Multi-Output Audio menu is activated. For more information about connecting Bluetooth headphones to the TV, refer to 'Listening to the TV through Bluetooth headphones.'

## Changing the menu language

(메뉴/123) > 메뉴 > System > Menu Language Try Now

You can use this function to change the menu language. Choose a language from the list.

## Setting up a password

(메뉴/123) > 메뉴 > System > Change PIN Try Now

You can set a Personal Identification Number (PIN) to lock channels, reset the TV, and change TV settings.

The PIN input window appears. Enter a PIN. Enter it again to confirm it. The default PIN is 0000.

If you forget your PIN, you can reset it with your remote control. With the TV turned on, press the following buttons on the remote control in the order shown below to reset the PIN to 0000: → + (Volume Up) → RETURN → − (Volume Down) → RETURN → + → RETURN.

## Checking Notifications

(메뉴/123) > 메뉴 > System > Notifications Try Now

You can view the list of event messages generated by the TV. Notifications appear on the screen when events such as an update release for an app or Samsung Account login/logout occurs.

To delete all notifications, select **Delete All**.

To check the SMART TV's service notifications in a web browser, select **Service Notice**.

## Enabling game mode

(메뉴/123) > 메뉴 > System > General > Game Mode Try Now

You can enable the game mode to optimize the TV's settings for playing video games with a gaming console, such as a PlayStation™ or Xbox™.

The game mode is not available for normal TV viewing.

The screen may shake somewhat.

**Picture Mode** and **Sound Mode** are switched to **Game** automatically.

To use a different external device, first disconnect the game console and disable **Game Mode**.

## Richer colors and superior picture quality (BD Wise)

(메뉴/123) > 메뉴 > System > General > BD Wise Try Now

You can enhance colors and picture quality if you connect a Samsung DVD player, Blu-ray player, or home theater system that supports BD Wise. When BD Wise is enabled, it automatically optimizes the TV's resolution.

This function is only available when the external device is connected via an HDMI cable.

## Enabling/Disabling sound feedback

(메뉴/123) > 메뉴 > System > General > Sound Feedback Try Now

You can use Sound Feedback to get audio cues as you navigate through menus and select menu options.

## Locking/Unlocking the Control Stick

(메뉴/123) > 메뉴 > System > General > Panel Lock Try Now

You can lock and unlock the front panel buttons (menu, channel, and volume) of the TV and the control stick on the back of the TV.

## Showing/Hiding the Samsung logo while booting

(메뉴/123) > 메뉴 > System > General > Boot Logo Try Now

You can enable or disable the Samsung logo display that appears when the TV starts up.

This function is not available when Samsung Instant On is set to On.

## Enabling the TV to boot faster

(메뉴/123) > 메뉴 > System > General > Samsung Instant On

You can set Samsung Instant On to On so that the TV boots up faster.

To save the history of the apps that you have used in the TV, set Samsung Instant On to On.

The Samsung Instant On function works when you turn on the TV while its power cable is still connected after you set Samsung Instant On to On. If you disconnect, reconnect the power cable, and then turn on the TV, this function does not work.

Even if the Samsung Instant On function is On, the power consumption while the TV is turned off meets the standby power consumption specification presented on the product label.

## Registering the TV as a DivX-certified device (watching for pay DivX movies)

(메뉴/123) > 메뉴 > System > DivX® Video On Demand

You can watch DivX DRM protected movies on the TV only if it is registered as a DivX-certified device.

1. Select System > DivX® Video On Demand. A window with a registration code appears on the screen.
2. Visit the DivX website on a computer and click [Register Your Device] under [Support] from the top menu.
3. Enter the registration code shown on the TV's screen in the [Enter your registration code] field.
4. Enter the TV's name in the [Name your device] field and then click [NEXT].
5. Click [DOWNLOAD] and save the [device_name.divx] file.
6. Transfer the [device_name.divx] file from the computer onto a USB device, and then plug the USB device into the TV.
7. Play the [device_name.divx] file on the TV to register the TV as a DivX-certified device.

Digital Rights Management (DRM) functions as a technical security mechanism to protect the content provider's copyright.

You can watch recorded movies or free DivX movies without registration.

Visit the DivX website (http://www.divx.com) and log in to your user account before registering the TV as a DivX-certified device. If you do not have an account, create one.

## Restoring the TV to the factory settings

(메뉴/123) > 메뉴 > Support > Self Diagnosis > Reset Try Now

You can restore all TV settings (excluding the Internet and network settings) to the factory defaults.

1. Select Reset. The security PIN entry window appears.
2. Enter the security PIN, and then select Yes. All settings are then reset. The TV turns off and on again automatically and displays the Setup screen.

For more information on Setup, refer to the user manual that came with the TV.

## Using the TV as a display model (for retail stores)

(메뉴/123) > 메뉴 > Support > Use Mode Try Now

You can turn the TV into a display model for retail environments by setting Use Mode to Store Demo.

For all other uses, select Home Use.

With Store Demo, some functions are disabled, and the TV automatically resets itself after a preset amount of time.

# Getting support through Remote Management

(메뉴/123) > 메뉴 > Support > Remote Management Try Now

You can use this feature to let Samsung Electronics diagnose your TV remotely, when you need assistance with your TV.

You will need to read and agree to the service agreement before using this feature.

This feature is only available when your TV is connected to the Internet.

## Finding the contact information for service

(메뉴/123) > 메뉴 > Support > Contact Samsung

You can view the address of the Samsung website, the call center phone number, your TV's model number, your TV's software version, the Smart Hub info, and other information you may need to get service support from a Samsung call agent or the Samsung website.

To view the Open Source License, press the A button.

## Requesting service

(메뉴/123) > 메뉴 > Support > Request Support

You can request service when you encounter a problem with the TV. Select Agree on the pop-up displayed. The Request Service Support screen appears. Select the item matching the problem that you encountered, and then select Send.

# There Is a Problem with the Picture

## Testing the picture

(메뉴/123) > 메뉴 > Support > Self Diagnosis > Picture Test Try Now

Before you review the list of problems and solutions below, use Picture Test to determine if the problem is caused by the TV. The Picture Test displays a high definition picture you can examine for flaws or faults.

| The problem | Try this! |
|---|---|
| Flickering and Dimming | If your Samsung Television is flickering or dimming sporadically, you may need to disable some of the energy efficiency features. Disable Energy Saving ((메뉴/123) > 메뉴 > System > Eco Solution > Energy Saving) or Eco Sensor ((메뉴/123) > 메뉴 > System > Eco Solution > Eco Sensor). |
| Component Connections/Screen Color | If the color on your Samsung television screen is not correct or the black and white colors are off, run Picture Test ((메뉴/123) > 메뉴 > Support > Self Diagnosis > Picture Test).<br>If the test results indicate that the problem is not caused by the TV, do the following:<br>• Confirm that the TV's video input connectors are connected to the correct external device video output connectors.<br>• Check the other connections as well. If the TV is connected to an external device via a component cable, confirm that the Pb, Pr, and Y jacks are plugged into their proper connectors. |
| Screen Brightness | If the colors on your Samsung TV are correct but just a little too dark or bright, try adjusting the following settings first.<br>• Go to the Picture menu and adjust the Backlight, Contrast, Brightness, Sharpness, Color, and Tint (G/R) settings. |
| Auto Motion Plus/Blur | If you notice ghosting or blurring on the screen, use the Auto Motion Plus function ((메뉴/123) > 메뉴 > Picture > Picture Options > Auto Motion Plus) to resolve the issue. |
| Unwanted Powering Off | If your Samsung TV appears to turn off by itself, try disabling some of the TV's energy efficiency functions. See if Sleep Timer ((메뉴/123) > 메뉴 > System > Time > Sleep Timer) has been enabled. The Sleep Timer automatically turns the TV off after a specified period of time. If the Sleep Timer has not been enabled, see if No Signal Power Off ((메뉴/123) > 메뉴 > System > Eco Solution > No Signal Power Off) or Auto Power Off ((메뉴/123) > 메뉴 > System > Eco Solution > Auto Power Off) has been enabled and disable them. |

| The problem | Try this! |
| --- | --- |
| Problems Powering On | When the TV is turned on, the remote control receiver flashes 5 times before the screen turns on.<br>If you are having problems powering on your Samsung television, there are a number of things to check before calling the service department. Confirm that the TV's power cord is connected correctly at both ends and that the remote control is operating normally. Make sure that the antenna cable or cable TV cable is firmly connected. If you have a cable/satellite box, confirm that it is plugged in and turned on. |
| Unable to find a Channel | If your TV is not connected to a cable box or satellite box, run Setup ((메뉴/123) > 메뉴 > System > Setup) or Auto Program (Broadcasting > Auto Program). |
| The TV image does not look as good as it did in the store. | Store displays are all tuned to digital, HD (high definition) channels.<br>If you have an analog cable/set top box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality.<br>Many HD channels are upscaled from SD (Standard Definition) content. Look for a channel that is broadcasting true HD content.<br>• Cable/Satellite Subscribers: Try HD channels from the channel lineup.<br>• Air/Cable Antenna Connection: Try HD channels after running the Auto Program function.<br>Adjust the cable/satellite box's video output resolution to 1080i or 720p. |
| The picture is distorted. | The compression of video content may cause picture distortions, especially in fast moving pictures from sports programs and action movies.<br>A weak or bad quality signal can cause picture distortions. This is not an issue with the TV.<br>Mobile phones used close to the TV (within 1m) may cause noise in analog and digital channels. |
| The color is wrong or missing. | If you're using a Component connection, make sure that the Component cables are connected to the correct jacks. Incorrect or loose connections may cause color problems or a blank screen. |
| The color is poor or the picture is not bright enough. | Go to the Picture menu and then adjust the Picture Mode, Brightness, Sharpness, and Color settings.<br>See if Energy Saving ((메뉴/123) > 메뉴 > System > Eco Solution > Energy Saving) has been enabled.<br>Try resetting the picture. (Picture > Picture Reset) |
| There is a dotted line on the edge of the screen. | Change Picture Size to 16:9.<br>Change the cable/satellite box resolution. |
| The picture is black and white. | If you are using AV composite input, connect the video cable (yellow) to the TV's green component jack. |

If the test picture does not appear or there is noise or distortion, the TV may have a problem. Contact Samsung's Call Center for assistance.

If the test picture is displayed properly, there may be a problem with an external device. Please check the connections. If the problem persists, check the signal strength or refer to the external device's user manual.

# I Can't Hear the Sound Clearly

## Testing the sound

(메뉴/123) > 메뉴 > Support > Self Diagnosis > Sound Test Try Now

If the TV plays the Sound Test melody without distortion, there may be a problem with an external device or the broadcast signal's strength.

| The problem | Try this! |
|---|---|
| There is no sound or the sound is too low at maximum volume. | Check the volume control of the device (cable/satellite box, DVD, Blu-ray, etc.) connected to your TV. |
| The picture is good but there is no sound. | Set (메뉴/123) > 메뉴 > Sound > Speaker Settings > Speaker Select to TV Speaker.<br>If you are using an external device, check the device's audio output option. (For example, you may need to change your cable box's audio option to HDMI if the box connected to your TV is using an HDMI cable.)<br>To listen to computer sound, connect an external speaker to the computer's audio output connector.<br>If your TV has a headphone jack, make sure there is nothing plugged into it.<br>Reboot the connected device by disconnecting and then reconnecting the device's power cable. |
| The speakers are making an odd sound. | Make sure that the audio cable is connected to the correct audio output connector on the external device.<br>For antenna or cable connections, check the signal information. A low signal level may cause sound distortions.<br>Run Sound Test ((메뉴/123) > 메뉴 > Support > Self Diagnosis > Sound Test). |

# I Can't See 3D Images Clearly

This function is only supported for the 7000 and 7500 series model or higher.

## Testing 3D picture quality

(메뉴/123) > 메뉴 > Support > Self Diagnosis > 3D Picture Test

If the test picture does not appear or there is noise or distortion, the TV may have a problem. Contact Samsung's Call Center for assistance.

| The problem | Try this! |
|---|---|
| The 3D glasses are not working correctly. | Make sure the glasses are powered on.<br>The 3D feature may not work properly if there is another 3D product or an electronic device running nearby.<br>If there is a problem, keep other electronic devices as far away as possible from the 3D Active Glasses. |
| I can't see 3D images clearly. | The ideal viewing distance is three times or more the height of the screen.<br>We also recommend watching 3D content with your eyes level with the screen. |
| The batteries in the 3D glasses are discharged. | Turn off the 3D glasses when they are not in use. If you leave the 3D glasses on, the battery lifespan is shortened. |

To test 3D picture quality, you must be wearing 3D glasses and the glasses and the TV must be paired.

# There Is a Problem with the Broadcast

| The problem | Try this! |
|---|---|
| The TV is not receiving all channels. | Confirm that the coaxial cable is securely connected to the TV.<br>Run Setup ((메뉴/123) > 메뉴 > System > Setup) or Auto Program ((메뉴/123) > 메뉴 > Broadcasting > Auto Program).<br>If you are using an antenna, verify it is positioned correctly and all the connections are secure. |
| There are no captions with digital channels. | Go to Caption ((메뉴/123) > 메뉴 > System > Accessibility > Caption) and change the Caption Mode.<br>Some channels may not have caption data. |
| The picture is distorted. | The compression of the video content may cause picture distortions. This is especially true with fast moving pictures from sports programs and action movies.<br>A weak signal can cause picture distortions. This is not a problem with the TV. |

# My Computer Won't Connect

| The problem | Try this! |
|---|---|
| The "Mode Not Supported" message appears. | Set your PC's output resolution so it matches a resolution supported by the TV. |
| The video is OK but there is no audio. | If you are using an HDMI connection, check the audio output setting on your PC.<br>If you are using an HDMI-to-DVI cable, a separate audio cable is required. |

# I Can't Connect to the Internet

| The problem | Try this! |
|---|---|
| The wireless network connection failed. | Confirm your wireless modem/router is on and connected to the Internet. |
| The software update over the Internet has failed. | Check the network connection status.<br>If the TV is not connected to a network, connect to a network.<br>The upgrade stops if you already have the latest software version. |

# The Schedule Recording/Timeshift Function Isn't Working

| The problem | Try this! |
|---|---|
| Schedule Recording cannot be used. | Check if there is a USB device connected to the TV.<br>Check if the channel is a digital channel that can be recorded. Recording will automatically stop if the signal becomes too weak. The Timeshift function will not work if there isn't enough storage space on the USB device. |

# Anynet+ (HDMI-CEC) Isn't Working

| The problem | Try this! |
|---|---|
| Anynet+ does not work. | Confirm that the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only.<br>Check if the power cord of the Anynet+ device is properly connected.<br>Check the cable connections of the Anynet+ device.<br>Go to Anynet+ (HDMI-CEC) ((메뉴/123) > 메뉴 > System > Anynet+ (HDMI-CEC)) and see if Anynet+ (HDMI-CEC) has been set to On.<br>Check whether the TV remote control is in TV mode.<br>Check whether the remote control is Anynet+ compatible.<br>Anynet+ may not function when some other functions are active, including Channel Search, Smart Hub, Plug & Play, etc.<br>If you have disconnected and then reconnected the HDMI cable, scan for devices again or turn your TV off and on. |
| I want to start Anynet+. | Check if the Anynet+ device is properly connected to the TV, and then select the Anynet+ (HDMI-CEC) ((메뉴/123) > 메뉴 > System > Anynet+ (HDMI-CEC)) menu to see if Anynet+ (HDMI-CEC) is set to On. |
| I want to exit Anynet+. | Select View TV from the Anynet+ menu.<br>Select a non-Anynet+ device from the Source list. |
| The message "Connecting to Anynet+ device..." or "Disconnecting from Anynet+ device" appears on the screen. | You cannot use the remote control when you are configuring Anynet+ or switching to a viewing mode. Use the remote control after the TV has completed the Anynet+ configuration or has switched to a viewing mode. |
| The Anynet+ device won't play. | You cannot use the play function when Setup is in progress. |
| The connected device is not displayed. | Check whether the device supports Anynet+.<br>Check whether the HDMI cable is properly connected.<br>Go to Anynet+ (HDMI-CEC) ((메뉴/123) > 메뉴 > System > Anynet+ (HDMI-CEC)) and see if Anynet+ (HDMI-CEC) has been set to On.<br>Scan for Anynet+ devices again.<br>Anynet+ devices must be connected to the TV using an HDMI cable. Make sure the device is connected to your TV with an HDMI cable. Some HDMI cables may not support Anynet+.<br>If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please scan for the device again. |
| The TV audio is not being played through the receiver. | Connect an optical cable to the TV and the receiver.<br>ARC enables the TV to output digital sound via the HDMI (ARC) port.<br>However, ARC is only available when the TV is connected to an audio receiver that supports ARC. |

# I Have Trouble in Launching/Using Apps

| The problem | Try this! |
|---|---|
| I launched an app, but it's in English. How can I change the language? | Languages supported by the app may be different from the user interface language. The ability to change the language depends on the service provider. |
| My application is not working. | Check with the service provider.<br>Refer to the Help section on the application service provider's website. |

# My File Won't Play

| The problem | Try this! |
|---|---|
| Some files can't be played. | This problem may occur with high-bitrate files. Most files can be played back, but you might experience problems with high-bitrate files. |

# I Want to Reset the TV

| Reset | Path | Description |
|---|---|---|
| Reset Settings | (메뉴/123) > 메뉴 > Support > Self Diagnosis > Reset | Reset Picture, Sound, Channel, Smart Hub, and all other settings, except for the network settings, to the default settings. |
| Resetting Smart Hub | (메뉴/123) > 메뉴 > Smart Hub > Reset Smart Hub | Resets all Smart Hub settings to their factory defaults and deletes all information related to Samsung accounts, linked service accounts, Smart Hub service agreements, and Smart Hub applications. |

# Other Issues

| The problem | Try this! |
|---|---|
| The TV is hot. | Watching TV for an extended period of time causes the panel to generate heat. The heat from the panel is dissipated through internal vents running along the top of the TV. The bottom, however, may feel hot to the touch after extended use. Children watching TV need constant adult supervision to prevent them from touching the TV. This heat, however, is not a defect and does not affect the TV's functionality. |
| The picture won't display in full screen. | HD channels will have black bars on either side of the screen when displaying upscaled SD (4:3) content.<br>Black bars will appear at the top and bottom of the screen when you watch movies that have aspect ratios different from your TV.<br>Adjust the picture size options on your external device or set the TV to full screen. |
| The "Mode Not Supported" message appears. | The output resolution of the attached device is not supported by the TV. Check the TV's supported resolutions and adjust the external device's output resolution accordingly. |
| The Captions item in the TV menu is grayed out. | You cannot select the Caption menu if you have selected a source connected to the TV via HDMI or Component. To view captions, turn on the external device's caption function. |
| The TV smells of plastic. | This smell is normal and will dissipate over time. |
| The Signal Information option under Self Diagnosis isn't activated. | Verify that the current channel is a digital channel.<br>The Signal Information is only available for digital channels. |
| The TV is tilted to the side. | Remove the base stand from the TV and reassemble it. |

| The problem | Try this! |
| --- | --- |
| The Broadcasting option has been deactivated. | Broadcasting is only available when the Source is set to TV.<br>The Broadcasting menu cannot be accessed while you watch TV using a cable box or satellite receiver.<br>The Broadcasting menu cannot be accessed while a recording is in progress or the Time Shift function is running. |
| The settings are lost after 5 minutes or every time the TV is turned off. | If the Use Mode is set to Store Demo, the TV's audio and video settings are automatically reset every 5 minutes.<br>Change the Use Mode ((메뉴/123) > 메뉴 > Support > Use Mode) to Home Use. |
| There is an intermittent loss of audio or video. | Check the cable connections and reconnect them.<br>Loss of audio or video can be caused by using overly rigid or thick cables.<br>Make sure the cables are flexible enough for long term use. If you are mounting the TV to a wall, we recommend using cables with 90-degree connectors. |
| There are small particles on the TV's bezel. | This is part of the product’s design and is not a defect. |
| The PIP menu is not available. | PIP functionality is only available when you are viewing video from an HDMI or Component source on the main screen. |
| A POP (TV’s internal banner ad) appears on the screen. | Change the Use Mode ((메뉴/123) > 메뉴 > Support > Use Mode) to Home Use. |
| The TV is making a popping noise. | The expansion and contraction of the TV's outer casing may cause a popping noise. This does not indicate a product malfunction. The TV is safe to use. |
| The TV is making a humming noise. | Your TV utilizes high-speed switching circuits and high levels of electrical current. Depending on the TV's brightness level, the TV may seem slightly noisier than a conventional TV.<br>Your TV has undergone strict quality control procedures that meet our demanding performance and reliability requirements.<br>Some noise coming from the TV is considered normal and is not an acceptable cause for an exchange or refund. |

# Before Using the Recording and Timeshift Functions

## Before using the recording and schedule recording functions

- To set up a Schedule Recording, you must first set the TV's clock. Set the **Clock** ((**메뉴/123**) > **메뉴** > **System** > **Time** > **Clock**).
- You can set up a maximum total of 30 **Schedule Viewing** and **Schedule Recording** entries.
- Recordings are DRM-protected and therefore cannot be played back on a computer or on a different TV. In addition, these files cannot be played back on your TV if its video circuit has been replaced.
- A USB hard drive with a speed of 5,400rpm or above is recommended. However, RAID-type USB hard drives are not supported.
- USB memory sticks are not supported.
- The total recording capacity may differ with the amount of available hard drive space and the recording quality level.
- **Schedule Recording** requires at least 100MB of free space on the USB storage device. Recording will stop if the available storage space falls below 50MB while recording is in progress.
- If the available storage space falls below 500MB while both the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum recording time is 720 minutes.
- A video is played according to the TV settings.
- If the input signal is changed while recording is in progress, the screen will go blank until the change is made. In this case, recording will resume, but ● will not be available.
- When using the Record or Schedule Recording function, the actual recording may start a second or two later than the specified time.
- If the Schedule Recording function is operating while a recording is being made on an HDMI-CEC external device, the priority is given to the Schedule Recording.
- Connecting a recording device to the TV automatically deletes abnormally saved recording files.
- If the **Off Timer** or **Auto Power Off** has been set, the TV will override these settings, continue to record, and turn off after the recording has ended.

## Before using the timeshift function

- A USB hard drive with a speed of 5,400 rpm or above is recommended. However, RAID-type USB hard drives are not supported.
- USB memory sticks are not supported.
- The total recording capacity may differ with the amount of available hard drive space and the recording quality level.
- If the available storage space falls below 500MB while both the Schedule Recording and Timeshift functions are in progress, only the recording will stop.
- The maximum amount of time available for the Timeshift function is 90 minutes.
- The Timeshift function is not available for locked channels.
- A time-shifted video is played according to the TV settings.
- The Timeshift function may be terminated automatically once it reaches its maximum capacity.
- The Timeshift function requires at least 1.5GB of free space available on the USB storage device.

# Read Before Using 3D Mode

This function is only supported for the 7000 and 7500 series model or higher.

## 3D precautions

**⚠ Warning**

- When viewing a 3D video under a fluorescent lamp (50 Hz - 60 Hz) or 3-wavelength lamp, you may notice a small amount of screen flickering.

  If this symptom occurs, dim or turn off the light.

- Switching the input mode while watching a 3D movie may disable the 3D function on the TV.

  If this symptom occurs, the 3D glasses may automatically turn off.

- If you lie on your side while watching TV with 3D active glasses, the picture may appear dark or may not be visible. The actual 3D effect may be experienced differently depending on the viewer. The 3D effect may not be visible if the visual ability of your left eye differs greatly from the visual ability of your right eye.

- If a part of the 3D glasses or lenses is defective or damaged, it cannot be repaired and the glasses should be replaced. If the glasses stop working within the warranty period, the glasses can be repaired or replaced for free. If the glasses have been damaged due to the fault of the customer or the warranty period has expired, a new pair of glasses will have to be purchased.

- If the eye sight in one of your eyes differs greatly from the eye sight in the other eye, you may perceive 3D effects to a lesser degree than other persons or may not perceive 3D effects at all.

- Ensure you are within the working distance of the glasses when you view a 3D video.

  The images may not be viewable in 3D if you move outside of the working distance for 3 seconds.

  If the 3D glasses are moved outside of their working distance, the signal from the TV will disconnect and the glasses' 3D function will turn off after several seconds. When this happens, the red LED will turn on for 3 seconds.

- The 3D glasses may not work properly due to interference from other 3D products or electronic devices that operate on the 2.4 GHz frequency such as a microwave oven or Internet AP. If the 3D function malfunctions due to interference, please move all other electronic or wireless communication devices as far away from the glasses and the TV as possible.

- The vividness of the image may appear degraded if you view 3D video in a place that is exposed to direct sunlight or illumination.

- The 3D glasses may malfunction if there is an electric field or metallic object such as a steel plate nearby.

- Keep the glasses as far away as possible from electric fields and metallic objects.

- With SSG-3570 model glasses, the glasses may power off if you remain stationary while viewing 3D video for an extended period of time.

- With SSG-3570 model glasses, if the 3D glasses do not function immediately after you put them on when the TV is in 3D mode, take them off and then put them back on.

## ⚠ Caution

**IMPORTANT HEALTH AND SAFETY INFORMATION FOR 3D VIEWING. READ THE FOLLOWING CAUTIONS BEFORE YOU OR YOUR CHILD USE THE 3D FUNCTION.**

- Adults should frequently check on children who are using the 3D function. If there are any complaints of tired eyes, headaches, dizziness, or nausea, stop the child from viewing the 3D TV and ensure that they rest.
- Do not use the 3D glasses for other purposes such as general wear, sunglasses, protective goggles, etc.
- Some viewers may experience discomfort such as dizziness, nausea, and headaches while viewing 3D TV. If you experience any of these symptoms, stop viewing the 3D TV, remove the 3D glasses, and rest for awhile.
- Watching 3D pictures for an extended period of time may cause eye strain. If you experience any eye strain, stop viewing the 3D TV, remove the 3D glasses, and rest for awhile.
- Do not use the 3D function or 3D glasses while walking or moving around. Using the 3D function or 3D Active Glasses while moving around may result in injury from running into objects, tripping, and/or falling.
- Do not sleep with the 3D glasses on. You can damage or break the temples.
- Keep the glasses as far away as possible from electric fields and metallic objects.
- With SSG-3570 model glasses, do not shake your 3D glasses repeatedly. Shaking the glasses will power them on and can cause the battery to discharge faster than it would normally.

## ⚠ Safety precautions

**The following safety instructions are provided to ensure your personal safety and prevent property damage. Please read the following to ensure the proper use of the product.**

- Do not place the product in a location exposed to direct sunlight, heat, fire, or water. Exposure may result in a product malfunction or fire.
- Do not apply force to the lenses of the 3D glasses. Do not drop or bend the glasses. Applying force, dropping, or bending may result in a 3D glasses malfunction.
- Keep the components of the 3D glasses out of reach of children. Especially, ensure children do not swallow any of the components. If your child swallows a component, consult your doctor immediately.
- When cleaning the glasses, do not spray water or cleaner directly onto its surface. Spraying water or cleaner directly onto the glasses may result in fire or electric shock, damage to the glasses's surface, or cause the indicator labels on the glasses's surface to come loose.
- Do not apply chemicals containing alcohol, solvent, or surfactant such as wax, benzene, thinner, pesticide, air freshener, lubricant, or cleaner to the glasses. These chemicals may cause the glasses's exterior to discolor or crack, or the labels or instructions to be removed. Use only a soft cloth such as superfine fibers or cotton flannels to clean the glasses as the surface or the lenses easily crack. Because the glasses can be easily scratched by foreign substances, make sure to dust off the cloth before using.
- Do not sleep with the 3D glasses on. You can break the arms.
- Do not disassemble, or attempt to repair or modify your 3D active glasses by yourself.
- Be careful not to let the temple ends of the 3D active glasses harm your eye.
- Use your hands to put on or remove the 3D glasses.
- For SSG-5100 and SSG-5150 model glasses, use only the specified standard batteries. When replacing the battery, insert the battery so that its polarity (+, -) is correct. Failing to do so may damage the battery or result in fire, personal injury or environmental damage caused by liquid leaking from the battery.
- For SSG-5100 and SSG-5150 model glasses, keep used batteries out of the reach of children so that they do not accidently swallow it. If your child swallows the battery, consult your doctor immediately.
- For SSG-5100 and SSG-5150 model glasses, Swallowing the cylindrical (button type) battery can cause serious damage to your internal organs. If this happens, contact a doctor immediately.

# Supported Resolutions for 3D Modes

These specifications apply to the 16:9 display ratio only.

This function is only supported for the 7000 and 7500 series model or higher.

## HDMI

- 3D Mode: (L/R), (T/B)

| Resolution | Frequency (Hz) |
|---|---|
| 1280 x 720p | 50 / 60 |
| 1920 x 1080i | 50 / 60 |
| 1920 x 1080p | 24 / 25 / 30 / 50 / 60 |
| 3840 x 2160p | 24 / 25 / 30 / 50 / 60 |

## Component

| Resolution | Frequency (Hz) |
|---|---|
| 1280 x 720p | 59.94 / 60 |
| 1920 x 1080i | 59.94 / 60 |
| 1920 x 1080p | 23.98 / 24 / 29.97 / 30 / 59.94 / 60 |

## Digital channel

| Resolution | Frequency (Hz) |
|---|---|
| 1280 x 720p | 59.94 / 60 |
| 1920 x 1080i | 59.94 / 60 |

## Videos/Photos

Refer to 'Read Before Playing Photo, Video, or Music Files.'

## Computer via HDMI cable

The optimal resolution for computers connected to the TV via an HDMI cable is 1920 x 1080. If you select another resolution, the TV may not display 3D images correctly and may not be able to display the computer video in full screen.

# Supported Resolutions for each of UHD Input Signals

- Resolution: 3840 x 2160p, 4096 x 2160p

  The HDMI connection with **HDMI UHD Color** set to **Off** supports up to UHD 50P/60P 4:2:0 input signals, while the HDMI connector with **HDMI UHD Color** set to **On** supports up to UHD 50P/60P 4:4:4 and 4:2:2 input signals.

## If HDMI UHD Color is set to Off

| Frame rate (fps) | Color Depth / Chroma Sampling | RGB 4:4:4 | YCbCr 4:4:4 | YCbCr 4:2:2 | YCbCr 4:2:0 |
|---|---|---|---|---|---|
| 50 / 60 | 8 bit | - | - | - | O |

## If HDMI UHD Color is set to On

| Frame rate (fps) | Color Depth / Chroma Sampling | RGB 4:4:4 | YCbCr 4:4:4 | YCbCr 4:2:2 | YCbCr 4:2:0 |
|---|---|---|---|---|---|
| 50 / 60 | 8 bit | O | O | O | O |
| | 10 bit | - | - | O | O |
| | 12 bit | - | - | O | O |

For the 6800, 6900, 7200 series models, make sure to connect to the HDMI IN 1 (STB/DVI) port of the TV.

Although the HDMI cable is connected to this port, the **HDMI UHD Color** function is not available on the 6300 series models.

# Read Before Using Voice, Motion, or Face Recognition

- The Voice Recognition function is only supported by the models with the Samsung Smart Control.
- The Motion Control and Face Recognition functions are only supported for the 6800 series models or higher.

## Precautions for voice, motion, and face recognition

### Face recognition

- This product saves thumbnail images of users' faces for use during the Face Recognition Login.
- Logging into the Smart Hub via Face Recognition may be less secure than logging in using an ID and password.

### Using the TV camera

- Under some circumstances and under certain legal conditions, the use/misuse of the TV camera may result in illegal actions. There may be obligations under local privacy laws regarding the protection of individuals concerning personal data and on the free movement of such data, and possibly other laws including criminal laws regulating camera surveillance both in the workplace and elsewhere.
- By using the TV camera, users agree that it will not be used (i) in locations where cameras are generally prohibited (such as bathrooms, locker rooms or changing rooms), (ii) in any manner that will result in an invasion of a person's privacy, or (iii) in violation of any applicable laws, regulations or statutes.
- When you are no longer using the camera, close the lens cover of the camera. This prevents any inadvertent or unintentional camera operation.

### Motion Control

- **Motion Control** functions through the camera connected to the TV. For **Motion Control** to work, you must be within the camera's recognition range. The camera's recognition range differs with the ambient light level and other factors.
- Run the **Motion Control Environment Test** before using Motion Control to determine the camera's recognition range.
- You may experience physical fatigue when using **Motion Control** for extended periods.

# Voice Recognition

- **Voice Recognition** is not available in all languages, dialects, or regions. Its performance differs with the language chosen, voice volume, and ambient noise levels in the surrounding area.
- Voice Text Input requires that you agree to any third-party app's voice privacy policy.
- Voice Text Input lets you enter text using voice commands instead of a mouse, keyboard, or remote control. This feature is particularly useful for searching, browsing the web, and using applications.
- You must agree to the following privacy notices before using Interactive **Voice Recognition**:
  - Voice Recognition Privacy Notice, Nuance Privacy Notice

# Requirements for using voice, motion, or face recognition

## Requirements for using voice recognition

- The voice recognition rate differs with the volume/tone, pronunciation, and ambient sound environment (TV sound and ambient noise).

## Requirements for Using Motion Recognition

- Be sure to use Motion Control within the recommended distance of between 1.5m and 3.5m. The actual recognition range may differ with the camera angle and other factors.
- You must be located within a range of the camera lens, because Motion Control relies on the TV's built-in camera. Adjust the camera's angle using the wheel on the back of the camera. Do not point the camera directly at the sun or any other light source or obstruct its view.
- For the camera to recognize movement, you must stand out from the background.
- The appropriate ambient brightness is 50 to 500 lux. (A bathroom typically has 100 Lux, a living room 400 Lux.)
- Avoid direct sunlight when using Motion Control.
- Run the **Motion Control Environment Test** to assess the camera's recognition range before using Motion Control.

## Requirements for using Face Recognition

- Be sure to use Face Recognition within the recommended distance of between 4.9 ft (1.5 m) and 13.1 ft (4 m). The actual recognition range may differ with the camera angle and other factors.
- The appropriate ambient brightness is 50 to 500 lux. (A bathroom typically has 100 Lux, a living room 400 Lux.)
- Face Recognition can recognize up to 5 different users at a time.
- The TV may have difficulty recognizing twins and people with similar faces as two different individuals.
- Note the following when using Face Recognition:
  - Do not cover your face with a hat, a pair of sunglasses, or your hair.
  - Your entire face must be visible to the camera. Avoid shadows over your face. Shadows prevent the camera from recognizing your face accurately.
  - Once recognition succeeds, the TV logs in to Smart Hub automatically. If the TV recognizes two or more registered faces, a list of corresponding accounts appears. Select the appropriate account.
  - When you log into your Samsung account, your facial expression must be the same as the facial expression you had when you registered.

# Read Before Using Apps

- Due to the product characteristics featured on Samsung Smart Hub, as well as limitations in available content, certain features, applications, and services may not be available on all devices or in all territories. Some Smart Hub features may also require additional peripheral devices or membership fees. Visit http://www.samsung.com for more information on specific device information and content availability. Services and content availability are subject to change without prior notice.
- Samsung Electronics takes no legal responsibility whatsoever for any interruption of app services caused by the service provider for any reason.
- Application services may be provided in English only and available content may differ with the geographical area.
- For more information about applications, visit the applicable service provider's website.
- An unstable Internet connection may cause delays or interruptions. In addition, applications may terminate automatically depending on the network environment. If this occurs, check your Internet connection and try again.
- Application services and updates may become unavailable.
- Application content is subject to change by the service provider without prior notice.
- Specific services may differ with the version of the application installed on the TV.
- An application's functionality may change in future versions of the application. If this occurs, run the application's tutorial or visit the service provider's website.
- Depending on the service provider's policies, certain applications may not support multitasking.

# Read Before Using the Web Browser

- Select **Web Browser**. The browsing screen may differ from the one on your computer.
- The web browser is not compatible with Java applications.
- You can download the supported types of files, such as videos, mp3 files, and images, but you cannot download files that are not supported by the TV. If you attempt to download an unsupported file, you will receive an error message instead.
- The web browser may not be able to access certain websites.
- Flash player is not supported.
- E-commerce for online purchases is not supported.
- With websites that have scrollable windows, scrolling a window can result in corrupted characters.
- ActiveX is not supported.
- Only a limited number of fonts are supported. Certain symbols and characters may not be displayed properly.
- The response to remote commands and the resulting on-screen display may be delayed while a webpage is loading.
- Loading a webpage may be delayed or suspended completely with certain operating systems.
- The copy and paste operations are not supported.
- When composing an email or a simple message, certain functions such as the font size and color selection may not be available.
- There is a limit to the number of bookmarks and the size of the log file that can be saved.
- The number of windows that can be opened concurrently differs with the search conditions and the TV model.
- The web browsing speed will differ with the network environment.
- The web browser supports .mp3 audio files only.
- If the **Clock** ((**메뉴/123**) > **메뉴** > **System** > **Time** > **Clock**) has not been set, the browsing history will not be saved.
- The browsing history is saved from latest to oldest, with the oldest entries being overwritten first.
- Depending on the types of video/audio codecs supported, it might not be possible to play certain video and audio files while playing Flash content.
- Video sources from PC-optimized streaming service providers may not play properly on our proprietary web browser.
- Using the on-screen QWERTY keyboard automatically disables PIP. (Except you are entering a URL.)

# Read Before Playing Photo, Video, or Music Files

## Limitations on use of photo, video, and music files

- The TV supports MSC (Mass Storage Class) USB devices only. MSC is a class designation for mass storage devices. Types of MSC devices include external hard drives, flash card readers, and digital cameras. (USB hubs are not supported.) These kinds of devices must be connected directly to the TV's USB port. The TV may not be able to recognize the USB device or read the files on the device if it is connected to the TV via a USB extension cable. Do not disconnect the USB device while transferring files.
- When connecting an external hard drive, use the USB (HDD) port. We recommend that you use an external hard drive with its own power adapter.
- Certain digital cameras and audio devices may not be compatible with the TV.
- If there are multiple USB devices connected to the TV, the TV might not be able to recognize some or all the devices. USB devices that use high-power input should be connect to the USB [5V, 1A] port.
- The TV supports the FAT, exFAT, and NTFS file systems.
- After sorting files in the Folder view mode, the TV can display up to 1000 files per folder. If the USB device contains more than 8,000 files and folders, however, some files and folders might not be accessible.
- The PTP (pier to pier) connection mode is available only for digital cameras. If you connect a smartphone or tablet to the TV using PTP mode, the TV will not recognize it.
- Be sure to connect a USB or external Hard Drive, supporting USB 3.0, to the USB 3.0 port.
- Certain files, depending on how they are encoded, may not play on the TV.
- Certain files are not supported on all models.

## Supported external subtitles

| Name | Format |
|---|---|
| MPEG-4 Timed text | .ttxt |
| SAMI | .smi |
| SubRip | .srt |
| SubViewer | .sub |
| Micro DVD | .sub or .txt |
| SubStation Alpha | .ssa |
| Advanced SubStation Alpha | .ass |
| Powerdivx | .psb |
| SMPTE-TT Text | .xml |

## Supported internal subtitles

| Name | Container |
|---|---|
| Xsub | AVI |
| SubStation Alpha | MKV |
| Advanced SubStation Alpha | MKV |
| SubRip | MKV |
| VobSub | MKV |
| MPEG-4 Timed text | MP4 |
| TTML in smooth streaming | MP4 |
| SMPTE-TT Text | MP4 |
| SMPTE-TT PNG | MP4 |

## Supported image formats and resolutions

| File extension | Format | Resolution |
|---|---|---|
| *.jpg<br>*.jpeg | JPEG | 15360x8640 |
| *.png | PNG | 4096x4096 |
| *.bmp | BMP | 4096x4096 |
| *.mpo | MPO | 15360x8640 |

## Supported music formats and codecs

| File extension | Format | Codec | Note |
|---|---|---|---|
| *.mp3 | MPEG | MPEG1 Audio Layer 3 | |
| *.m4a<br>*.mpa<br>*.aac | MPEG4 | AAC | |
| *.flac | FLAC | FLAC | Supports up to 2 channels |
| *.ogg | OGG | Vorbis | Supports up to 2 channels |
| *.wma | WMA | WMA | Supports up to 10 Pro 5.1 channels.<br>WMA lossless audio is not supported.<br>Supports up to the M2 profile. |
| *.wav | wav | wav | |
| *.mid<br>*.midi | midi | midi | Supports type 0 and type 1.<br>Seek is not supported.<br>Supports USB device only. |
| *.ape | ape | ape | |
| *.aif<br>*.aiff | AIFF | AIFF | |
| *.m4a | ALAC | ALAC | |

# Supported video codecs

<table>
<tr><th>File format</th><th>Container</th><th>Video codecs</th><th>Resolution</th><th>Frame rate (fps)</th><th>Bitrate (Mbps)</th><th>Audio codecs</th></tr>
<tr><td rowspan="15">*.avi<br>*.mkv<br>*.asf<br>*.wmv<br>*.mp4<br>*.mov<br>*.3gp<br>*.vro<br>*.mpg<br>*.mpeg<br>*.ts<br>*.tp<br>*.trp<br>*.mov<br>*.flv<br>*.vob<br>*.svi<br>*.m2ts<br>*.mts<br>*.divx</td><td rowspan="15">AVI<br>MKV<br>ASF<br>MP4<br>3GP<br>MOV<br>FLV<br>VRO<br>VOB<br>PS<br>TS<br>SVAF</td><td>H.264 BP/MP/HP</td><td rowspan="3">4096x2160</td><td>4096X2160: 24<br>3840X2160: 30</td><td>40</td><td rowspan="15">Dolby Digital<br>LPCM<br>ADPCM(IMA, MS)<br>AAC<br>HE-AAC<br>WMA<br>Dolby Digital Plus<br>MPEG(MP3)<br>DTS(Core, LBR)<br>G.711(A-Law, µ-Law)</td></tr>
<tr><td>HEVC (H.265 - Main, Main10, Main4:2:2 10 )</td><td>60</td><td>80</td></tr>
<tr><td>Motion JPEG</td><td>30</td><td>80</td></tr>
<tr><td>MVC</td><td rowspan="12">1920x1080</td><td rowspan="6">60</td><td rowspan="13">20</td></tr>
<tr><td>DivX 3.11 / 4 / 5 / 6</td></tr>
<tr><td>MPEG4 SP/ASP</td></tr>
<tr><td>Window Media Video v9(VC1)</td></tr>
<tr><td>MPEG2</td></tr>
<tr><td>MPEG1</td></tr>
<tr><td>Microsoft MPEG-4 v1, v2, v3</td><td rowspan="6">30</td></tr>
<tr><td>Window Media Video v7(WMV1) ,v8(WMV2)</td></tr>
<tr><td>H.263 Sorrenson</td></tr>
<tr><td>VP6</td></tr>
<tr><td>*.webm</td><td>WebM</td><td>VP8</td><td>1920x1080</td><td>90</td><td>Vorbis</td></tr>
<tr><td></td><td></td><td>VP9</td><td>4096x2160</td><td>4096X2160: 24<br>3840X2160: 30</td><td></td><td></td></tr>
</table>

## Other restrictions

- Codecs may not function properly if there is a problem with the content.
- Video content does not play or does not play correctly if there is an error in the content or container.
- Sound or video may not work if they have standard bit rates/frame rates above the TV's compatibility ratings.
- If the Index Table is has an error, the Seek (Jump) function will not work.
- When playing video over a network connection, the video may not play smoothly because of data transmission speeds.
- Some USB/digital camera devices may not be compatible with the TV.
- HEVC codec is only available in MKV/MP4/TS containers.

## Video decoders

- H.264 FHD is supported up to Level 4.1. FMO/ASO/RS are not supported.
- H.264 UHD is supported up to Level 5.1.
- HEVC FHD is supported up to Level 4.1, and HEVC UHD is supported up to Level 5.1.
- VC1 AP L4 is not supported.
- All video codecs excluding WMV v7, v8, MSMPEG4 v3, MVC, and VP6:

  **Below 1280x720**: 60 frame max

  **Above 1280x720**: 30 frame max
- GMC 2 or above is not supported.
- Supports SVAF Top/Bottom. Side by Side, and Left/Right view sequence type (2ES) only.
- Supports BD MVC specs only.

## Audio decoders

- WMA 10 Pro supports up to 5.1 channels. Supports up to the M2 profile. WMA lossless audio is not supported.
- QCELP and AMR NB/WB are not supported.
- Vorbis is supported for up to 5.1 channels.
- Dolby Digital Plus is supported for up to 5.1 channels.
- The DTS LBR codec is only available for MKV / MP4 /TS containers.
- The supported sample rates are:
  - 8, 11.025, 12, 16, 22.05, 24, 32, 44.1, and 48 KHz, and differ by the codec.

# Read After Installing the TV

## Picture sizes and input signals

The **Picture Size** setting is applied to the current source. The applied **Picture Size** will remain in effect whenever you select that source unless you change it.

| Input signal | Picture size |
|---|---|
| Component | 16:9, Zoom, Custom, 4:3 |
| Component (1080i, 1080p) | 16:9, Zoom, Custom, 4:3 |
| Digital channel (720p, 1080i, 1080p) | 16:9, Zoom, Custom, 4:3 |
| Digital channel (3840 x 2160p) | 16:9, Zoom, Custom |
| Digital channel (4096 x 2160p) | 16:9, Zoom, Custom |
| HDMI (720p) | 16:9, Zoom, Custom, 4:3 |
| HDMI (1080i, 1080p) | 16:9, Zoom, Custom, 4:3 |
| HDMI (3840 x 2160p) | 16:9, Zoom, Custom |
| HDMI (4096 x 2160p) | 16:9, Zoom, Custom |

# Read before setting up a wireless Internet connection

## Precautions for wireless Internet

- This TV supports the IEEE 802.11a /b /g /n /ac communication protocols. Samsung recommends using IEEE 802.11n. Video files stored on a device connected to the TV via a Home Network may not play back smoothly.

  IEEE 802.11 ac communication protocol is not available on certain models.

- To use wireless Internet, the TV must be connected to a wireless router or modem. If the wireless router supports DHCP, the TV can use a DHCP or static IP address to connect to the wireless network.
- Select a channel that is not currently in use for the wireless router. If the channel set for the wireless router is currently being used by another device, the result is usually interference and/or a communications failure.
- Most wireless networks have an optional security system. To enable a wireless network's security system, you need to create a password using characters and numbers. This password is then needed to connect to a security-enabled AP.

## Wireless security protocols

The TV only supports the following wireless network security protocols. The TV cannot connect to non-certified wireless routers.

- Authentication Modes: WEP, WPAPSK, WPA2PSK
- Encryption Types: WEP, TKIP, AES

In compliance with the newest Wi-Fi certification specifications, Samsung TVs do not support WEP or TKIP security encryption in networks running in the 802.11n mode.

If the wireless router supports WPS (Wi-Fi Protected Setup), you can connect the TV to your network using PBC (Push Button Configuration) or a PIN (Personal Identification Number). WPS automatically configures the SSID and WPA key settings.

# Read Before Connecting a Computer (Supported Resolutions)

When you connect your TV to a computer, set the computer's video card to one of the standard resolutions listed in the tables below or on the next page. The TV will automatically adjust to the resolution you choose. Note that the optimal and recommended resolution is 1920 x 1080 at 60 Hz. Choosing a resolution not included in the tables can result in a blank screen or just the power indicator turning on. Refer to the user manual of your graphics card for compatible resolutions.

For the 6300 series models, optimal and recommended resolution is 3840 x 2160 at 30Hz.

## IBM

| Resolution (Dots x lines) | Display format | Horizontal frequency (KHz) | Vertical frequency (Hz) | Clock frequency (MHz) | Polarity (horizontal / vertical) |
|---|---|---|---|---|---|
| 720 x 400 | 70 Hz | 31.469 | 70.087 | 28.322 | - / + |

## MAC

| Resolution (Dots x lines) | Display format | Horizontal frequency (KHz) | Vertical frequency (Hz) | Clock frequency (MHz) | Polarity (horizontal / vertical) |
|---|---|---|---|---|---|
| 640 x 480 | 67 Hz | 35.000 | 66.667 | 30.240 | - / - |
| 832 x 624 | 75 Hz | 49.726 | 74.551 | 57.284 | - / - |
| 1152 x 870 | 75 Hz | 68.681 | 75.062 | 100.000 | - / - |

## VESA DMT

| Resolution (Dots x lines) | Display format | Horizontal frequency (KHz) | Vertical frequency (Hz) | Clock frequency (MHz) | Polarity (horizontal / vertical) |
|---|---|---|---|---|---|
| 640x480 | 60 Hz | 31.469 | 59.940 | 25.175 | - / - |
| 640x480 | 72 Hz | 37.861 | 72.809 | 31.500 | - / - |
| 640x480 | 75 Hz | 37.500 | 75.000 | 31.500 | - / - |
| 800 x 600 | 60 Hz | 37.879 | 60.317 | 40.000 | + / + |
| 800 x 600 | 72 Hz | 48.077 | 72.188 | 50.000 | + / + |
| 800 x 600 | 75 Hz | 46.875 | 75.000 | 49.500 | + / + |
| 1024x768 | 60 Hz | 48.363 | 60.004 | 65.000 | - / - |
| 1024x768 | 70 Hz | 56.476 | 70.069 | 75.000 | - / - |
| 1024x768 | 75 Hz | 60.023 | 75.029 | 78.750 | + / + |
| 1152x864 | 75 Hz | 67.500 | 75.000 | 108.000 | + / + |
| 1280x720 | 60 Hz | 45.000 | 60.000 | 74.250 | + / + |
| 1280x800 | 60 Hz | 49.702 | 59.810 | 83.500 | - / + |
| 1280x1024 | 60 Hz | 63.981 | 60.020 | 108.000 | + / + |
| 1280x1024 | 75 Hz | 79.976 | 75.025 | 135.000 | + / + |
| 1366x768 | 60 Hz | 47.712 | 59.790 | 85.500 | + / + |
| 1440x900 | 60 Hz | 55.935 | 59.887 | 106.500 | - / + |
| 1600x900RB | 60 Hz | 60.000 | 60.000 | 108.000 | + / + |
| 1680x1050 | 60 Hz | 65.290 | 59.954 | 146.250 | - / + |
| 1920x1080 | 60 Hz | 67.500 | 60.000 | 148.500 | + / + |

# Supported Resolutions for Video Signals

## CEA-861

| Resolution (Dots x lines) | Display format | Horizontal frequency (KHz) | Vertical frequency (Hz) | Clock frequency (MHz) | Polarity (horizontal / vertical) |
|---|---|---|---|---|---|
| 720(1440)x576i | 50Hz | 15.625 | 50.000 | 27.000 | - / - |
| 720(1440)x480i | 60 Hz | 15.734 | 59.940 | 27.000 | - / - |
| 720x576 | 50Hz | 31.250 | 50.000 | 27.000 | - / - |
| 720x480 | 60 Hz | 31.469 | 59.940 | 27.000 | - / - |
| 1280x720 | 50Hz | 37.500 | 50.000 | 74.250 | + / + |
| 1280x720 | 60 Hz | 45.000 | 60.000 | 74.250 | + / + |
| 1920x1080i | 50Hz | 28.125 | 50.000 | 74.250 | + / + |
| 1920x1080i | 60 Hz | 33.750 | 60.000 | 74.250 | + / + |
| 1920x1080 | 24Hz | 27.000 | 24.000 | 74.250 | + / + |
| 1920x1080 | 25Hz | 28.125 | 25.000 | 74.250 | + / + |
| 1920x1080 | 30Hz | 33.750 | 30.000 | 74.250 | + / + |
| 1920x1080 | 50Hz | 56.250 | 50.000 | 148.500 | + / + |
| 1920x1080 | 60 Hz | 67.500 | 60.000 | 148.500 | + / + |
| 3840x2160 | 24Hz | 54.000 | 24.000 | 297.000 | + / + |
| 3840x2160 | 25Hz | 56.250 | 25.000 | 297.000 | + / + |
| 3840x2160 | 30Hz | 67.500 | 30.000 | 297.000 | + / + |
| *3840x2160 | 50Hz | 112.500 | 50.000 | 594.000 | + / + |
| *3840x2160 | 60 Hz | 135.000 | 60.000 | 594.000 | + / + |
| 4096x2160 | 24Hz | 54.000 | 24.000 | 297.000 | + / + |
| 4096x2160 | 25Hz | 56.250 | 25.000 | 297.000 | + / + |
| 4096x2160 | 30Hz | 67.500 | 30.000 | 297.000 | + / + |
| *4096x2160 | 50Hz | 112.500 | 50.000 | 594.000 | + / + |
| *4096x2160 | 60 Hz | 135.000 | 60.000 | 594.000 | + / + |

*: For the 6800, 6900, 7200 series models or lower, make sure to connect to the HDMI IN 1 (STB/DVI) port of the TV.

Although the HDMI cable is connected to this port, the **HDMI UHD Color** function is not available on the 6300 series models.

# Read Before Using Bluetooth Devices

## Restrictions on using Bluetooth

- The Samsung Bluetooth Speaker function is only available for devices supporting TV SoundConnect.
- You can't use Bluetooth devices, TV SoundConnect, and the Surround feature simultaneously.
- Compatibility issues may occur, depending on the Bluetooth device. (A Mobile exclusive headphone may not be available, depending on the environment.)
- Lip-sync errors may occur.
- The TV and Bluetooth device may disconnect, depending on the distance between them.
- A Bluetooth device may hum or malfunction:
  - When a part of your body is in contact with the receiving/transmitting system of the Bluetooth device or the TV.
  - When the device is subject to electrical variation from obstructions caused by a wall, corner, or office partitioning.
  - When the device is exposed to electrical interference from same frequency-band devices including medical equipment, microwave ovens, and wireless LANs.
- If the problem persists, try connecting the device using the digital optical port or the HDMI (ARC) port.

# License

This DivX Certified® device has passed rigorous testing to ensure it plays DivX® video.
To play purchased DivX movies, first register your device at vod.divx.com. Find your registration code in the DivX VOD section of your device setup menu.
DivX Certified® to play DivX® video up to HD 1080p, including premium content.
DivX®, DivX Certified® and associated logos are trademarks of DivX, LLC and are used under license.
Covered by one or more of the following U.S. patents: 7,295,673; 7,460,668; 7,515,710; 7,519,274.
This device supports DivX Plus Streaming® for enjoying HD movies and TV shows with advanced features (multi-language subtitles, multiple audio tracks, chapters, smooth FF/RW, etc.) streamed to your device.

For DTS patents, see http://patents.dts.com. Manufactured under license from DTS, Inc. DTS, the Symbol, DTS in combination with the Symbol, DTS Premium Sound|5.1, DTS Digital Surround, DTS Express, and DTS Neo2:5 are registered trademarks or trademarks of DTS, Inc. in the United States and/or other countries.
© DTS, Inc. All Rights Reserved.

For DTS patents, see http://patents.dts.com. Manufactured under license from DTS Licensing Limited. DTS, the Symbol, & DTS and the Symbol together are registered trademarks, and HEADPHONE:X and the DTS HEADPHONE:X logo are trademarks of DTS, Inc. © DTS, Inc. All Rights Reserved.

Manufactured under license from Dolby Laboratories.
Dolby and the double-D symbol are trademarks of Dolby Laboratories.

The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.

Open Source License Notice

Open Source used in this product can be found on the following webpage. (http://opensource.samsung.com) Open Source License Notice is written only English.

This license is may not be supported depending on the model.

# Glossary

- **480i / 480p / 720p / 1080i / 1080p**

  Generally refers to the number of effective scanning lines that determines the screen's resolution. There are two scanning methods: interlaced and progressive.

  – Scanning

    Sequential projection of pixels to form images. The higher the number of pixels, the clearer and more vivid the images.

  – Progressive

    A sequential scanning method that scans every line, one after another.

  – Interlaced

    A staggered scanning method that scans every other line until the end of the screen and then fills in the remaining lines.

  Example) If the number of horizontal scan lines is 480i

  Scans 240 lines from start to finish and then scans the remaining 240 lines for a total of 480 lines.

  * General differences between 480i and 480p are as follows:

| | 480i | 480p |
|---|---|---|
| Horizontal frequency | 15.75Khz | 31.5Khz |
| FPS | 30 | 60 |
| Lines on Screen | 480 | 480 |

- **ARC (Audio Return Channel)**

  ARC lets the TV output digital sound to an audio device and input digital sound from the same audio device through one HDMI cable. However, ARC is only available through the HDMI (ARC) port and only when the TV is connected to an ARC-enabled AV receiver.

- **DVI (Digital Visual Interface)**

  Connecting the TV's DVI connector to a computer's DVI connector via an HDMI-to-DVI cable lets you use the TV as a computer monitor. However, HDMI-to-DVI cables deliver video signals only. You must connect a set of speakers to the computer using a separate cable to hear the computer's audio.

- **HDMI (High Definition Multimedia Interface)**

  HDMI is a method of transmitting both video and audio signals via a single cable.

- **Dynamic versus Static IP Addresses**

  If the network requires a dynamic IP address, use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway and DNS values the TV needs to access the Internet, so they do not have to be entered manually. Most home networks use a dynamic IP address.

  If the network requires a static IP address, enter the IP address, subnet mask, gateway, and DNS values manually when setting up the network connection. To get the IP address, subnet mask, gateway and DNS values, contact your Internet Service Provider (ISP).

  If the network requires a static IP address, use an ADSL modem that supports DHCP. ADSL modems that support DHCP also allow static IP addresses.

- **Bluetooth**

  Bluetooth is a short-distance wireless communication protocol allowing information exchange between connected mobile phones, laptops, earphones and headphones with Bluetooth-compatible devices. It is mostly used for low-power wireless connections within a distance of 32.8 ft.

- **Ethernet**

  Ethernet is a LAN (Local Area Network) that uses coaxial cables standardized by the IEEE.

- **Component Connection**

  Component connections are mostly used for game consoles and transmit the video signal by splitting it into a luminance signal (Y) and two color signals (Pb and Pr). The connector is marked as [Component IN]_(Pr, Pb, Y) on the back of the TV. On some devices, it is sometimes marked as Cr, Cb, Y. Cb and Cr are the digital conversions of the Pb and Pr signals.

  The connectors are normally color-coded red (R), blue (B), and green (G) and offer the best picture quality possible for an analog connection.